

**"MARKED UP VERSION" OF SPECIFICATION:**

Pages 7-8 of Specification

Amylostatins  
and semisynthetic  
analogues

ACARBOSE

defined as "acarbose and higher homologues"\*

ACARBOSE

Compound disclosed specifically in DE-2347782. The following are  
homologues of acarbose:

These specific compounds are disclosed in GB-1,482,543, wherein:

X	M	N	GB-1,482,543 ref
OH	0	0	Component II
OH	0	1	Component III
OH	0	2	Component IV
OH	0	3	Component V
OH	0	4	Component VI
OH	0	5	Component VII
OH	0	6	Component VIII

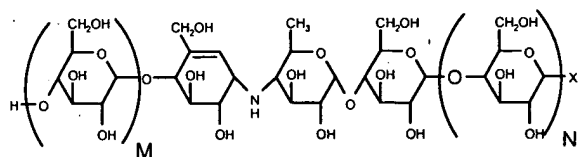
These specific compounds are disclosed in Agric. Biol. Chem.,46 (7), 1941-  
1945, 1982, wherein:

Compounds  
disclosed  
generically  
and  
specifically in  
GB1,482,543  
: US  
4,175,123;  
and in  
Agric. Biol.  
Chem.,46 (7),  
1941-1945,  
1982

EXPRESS MAIL NO. EV3128684005

<u>X</u>	<u>M</u>	<u>N</u>	<u>Agr. Biol. Chem ref</u>
<u>OH</u>	<u>0</u>	<u>0</u>	<u>Compound 1</u>
<u>OH</u>	<u>0</u>	<u>1</u>	<u>Compound 2</u>
<u>OH</u>	<u>0</u>	<u>2</u>	<u>Compound 3</u>
<u>OH</u>	<u>1</u>	<u>0</u>	<u>Compound 4</u>
<u>OH</u>	<u>1</u>	<u>1</u>	<u>Compound 5</u>
<u>OH</u>	<u>1</u>	<u>2</u>	<u>Compound 6</u>

The following semi-synthetic acarbose analogues, generically and specifically disclosed in US-4,175,123



wherein M=0 to 8, and the sum of M+N is 0 to 7; X is OR, SH, SR, NH<sub>2</sub>, NHR, or NRR<sup>1</sup>, where R is alkyl, alkenyl, cycloalkyl, aralkyl, aryl or heterocycl  
wherein:

alkyl is preferably straight-chain or branched alkyl with 1 to 30, especially 1 to 18, carbon atoms (e.g. methyl, ethyl, n-propyl, l-propyl, n-butyl, t-butyl, n-hexyl, n-octyl, octyl-2, dodecyl, lauryl, cetyl and stearyl), wherein the alkyl radicals R can carry one or more, preferably 1 to 5, identical or different substituents (e.g.. hydroxyl, or alkoxy, with preferably 1 to 4 carbon atoms, methoxy and ethoxy; amino or monoalkylamino and dialkylamino, with preferably 1 to 4 carbon atoms per alkyl radical, monomethylamino, monoethylamino, dimethylamino, and diethylamino; mercapto or alkylthio, with preferably 1 to 4 carbon atoms, methylthio and ethylthio; halogen (preferably fluorine, chlorine and bromine) ;alkylcarbonyl, with preferably 1 to 4 carbon atoms in the alkyl radical; and carboxyl, nitro, cyano, the aldehyde group and the sulphonic acid group;

alkenyl is preferably straight-chain or branched alkenyl with 2 to 6 carbon atoms, with optional substituents (e.g. hydroxyl, alkoxy with 1 to 4 carbon atoms, mercapto, alkylthio with 1 to 4 carbon atoms, halogen (preferably fluorine, chlorine and bromine) or nitro);

cycloalkyl, preferably a carbocyclic radical with 3 to 7 ring carbon atoms (preferably 5 to 7 ring carbon atoms), which can be substituted, (e.g. the groups and atoms mentioned above in the case of open-chain hydrocarbon radicals R);

aryl is preferably a monocyclic or bicyclic aromatic radical with 6 to 10 carbon atoms in the aryl part (e.g. phenyl, biphenyl, naphthyl, etc., in particular phenyl, which can be substituted), optionally substituted aryl or aralkyl radicals, preferably 1 to 3 identical or different substituents (e.g. alkyl with 1 to 10 carbon atoms, optionally substituted, (e.g. chlorine, nitro or cyano); optionally substituted alkenyl radicals with 1 to 10 carbon atoms; hydroxyl or alkoxy with preferably 1 to 4 carbon atoms; amino or monoalkylamino and dialkylamino with preferably 1 to 4 carbon atoms per alkyl radical; mercapto or alkylthio with preferably 1 to 4 carbon atoms; and carboxyl or carbalkoxy with preferably 1 to 4 carbon atoms; the sulphonic acid group, alkylsulphonyl with preferably 1 to 4 carbon atoms and arylsulphonyl, preferably phenylsulphonyl; aminosulphonyl or alkylaminosulphonyl and dialkylaminosulphonyl with 1 to 4 carbon atoms per alkyl group, preferably methylaminosulphonyl and dimethylaminosulphonyl; nitro, cyano or the aldehyde group; alkylcarbonylamino with preferably 1 to 4 carbon atoms; and alkylcarbonyl with 1 to 4 carbon atoms, benzoyl, benzylcarbonyl and phenethylcarbonyl, the last-mentioned alkyl, phenyl, benzyl and phenethyl radicals may be optionally substituted (e.g. chlorine, nitro or hydroxyl, as well as radicals derived from sugars);

aralkyl preferably has 6 to 10, especially 6, carbon atoms in the aryl part said aryl part being preferably monocyclic or bicyclic carbocyclic aryl, such as phenyl, biphenyl or naphthyl, and preferably 1 to 4, especially 1 or 2, carbon atoms in the alkyl part, as for example in benzyl or phenylethyl. Possible substituents for the aryl part of the aralkyl radical are preferably those substituents mentioned for the aryl radicals R above;

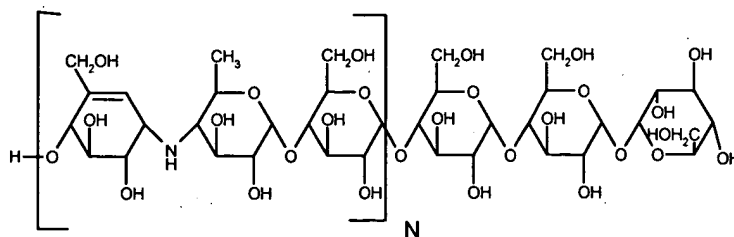
Heterocyclyl preferably has a hetero-paraffinic, heteroaromatic or hetero-olefinic 5-membered or 6-membered ring, with preferably 1 to 3 identical or different hetero-atoms (e.g. oxygen, sulphur or nitrogen), optionally substituted (e.g. hydroxyl, amino, C<sub>1</sub>-C<sub>4</sub>-alkyl groups, benzene nuclei or further, preferably 6-membered, heterocyclic rings of the type mentioned can be fused to them, wherein the bonding of the heterocyclic radical R is effected via a carbon atom of the heterocyclic system or of the fused benzene nucleus (preferred

heterocyclic radicals are derived, e.g., from furan, pyran, pyrrolidine, piperidine, pyrazole, imidazole, pyrimidine, pyridazine, pyrazine, triazine, pyrrole, pyridine, benzimidazole, quinoline, isoquinoline or purine, including those heterocycles which are bonded via a  $-CH_2-$  bridge outside the ring, for example the furfuryl radical));

wherein  $R_1$  of  $NRR^1$ , is alkyl, cycloalkyl, aralkyl, or aryl in which  $R_1$  preferably represents a straight-chain or branched alkyl radical with 1-6 carbon atoms or a cycloalkyl, aralkyl or aryl radical as defined above for R (e.g. cyclopentyl, cyclohexyl, benzyl or phenyl radical), it being possible for the radicals mentioned to be preferably substituted by alkoxy with 1 to 4 carbon atoms, amino,  $C_1-C_4$  monoalkylamino and  $C_1-C_4$ -dialkylamino, nitro, cyano, hydroxyl, mercapto,  $C_1-C_4$ -thioalkyl or the carboxyl or sulphonic acid group, in the case where  $R_1$  denotes phenyl, also by  $C_1-C_4$ -alkyl;

wherein R and  $R_1$  and the nitrogen atom to which they are bonded, may optionally form a heterocyclic ring, optionally saturated or unsaturated, the ring optionally containing 1 to 3 further (preferably 1) oxygen atoms, sulphur atoms or nitrogen atoms and, as hetero groups, a  $SO_2$  group or a N-alkyl group, the alkyl (e.g. methyl, ethyl, n- and i-propyl and n-, l- and t-butyl) in the N-alkyl group preferably containing 1-4, in particular 1 or 2, carbon atoms; wherein the heterocyclic ring contains 5-7, preferably 5 or 6, ring members. The 6-membered heterocyclic ring preferably contains the hetero-atom or the hetero-group in the para-position relative to the nitrogen atom (e.g. pyrrolidine, piperidine, hexamethyleneimine, morpholine and N-methylpiperazine).

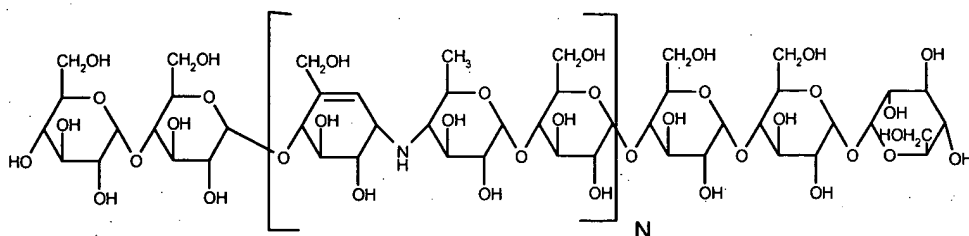
J. Antibiotics **36 p1157-1165 (1983)** discloses the fermentation and isolation of a family of amylase inhibitors, trestatin-A, B and C. J. Antibiotics **36 p1166-1175 (1983)** discloses the structures of trestatin-A, B and C



Trestatin A, N = 2  
Trestatin B N = 1  
Trestatin C N = 3

Trestatine,  
e.g. — these  
described in:  
J. Antibiotics  
36: — 1157-  
1165, (1983)  
J. Antibiotics  
36: — 1166-  
1175, (1983)  
And  
compounds  
described in

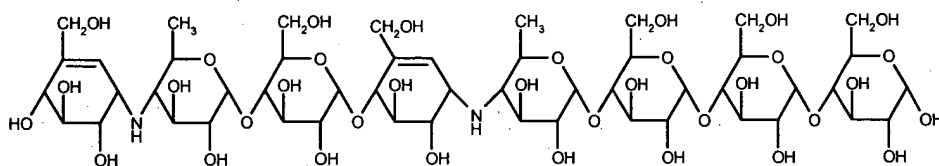
J. Antibiotics 37 p182-186 (1984) describes the isolation, characterisation and structure elucidation of higher homologues of the trestatins. The structures disclosed are:



Ro 09-0766, N = 3  
Ro 09-0767, N = 2  
Ro 09-0768, N = 1

*J. Antibiotics*  
37(2): 182-186, (1984)

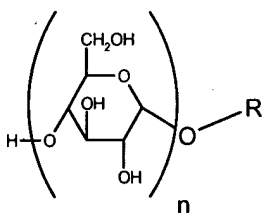
The amylase inhibitor, V-1532, is prepared and characterized as described in J.Mol. Biol. 260, 409-421, (1996).



V-1532

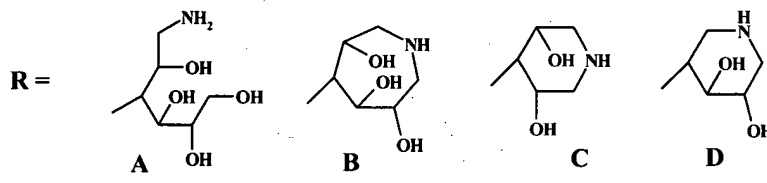
V-1532  
described in  
*J.Mol. Biol.*  
260, 409-421, (1996)

Chem. Pharm. Bull 47(2), 187-193 (1999) describes the synthesis of the following N-containing maltooligosaccharides with  $\alpha$ -amylase activity.



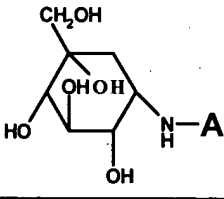
n = 0-4

R = 4 definitions of N containing moieties



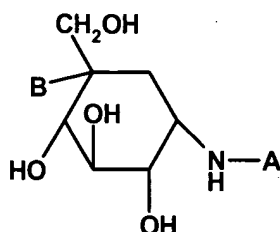
R	n	Chem. Pharm Bull
A	0	Compound 6
A	1	Compound 7
A	2	Compound 8
A	3	Compound 9

compounds  
described in  
*Chem. Pharm.*  
*Bull* 47(2),  
187-193  
(1999);  
JP2000044589  
A

A	3	Compound 9		
A	4	Compound 10		
B	0	Compound 11		
B	1	Compound 12		
B	2	Compound 13		
B	3	Compound 14		
B	4	Compound 15		
C	0	Compound 16		
C	1	Compound 17		
C	2	Compound 18		
C	3	Compound 19		
C	4	Compound 20		
D	1	Compound 22		
D	2	Compound 23		
D	3	Compound 24		
<p><b>Amylase inhibitor SA-1</b></p> <p><u>Agric. Biol. Chem, 41(11) 2221-2228 (1977) describes the fermentation, recovery and isolation of the microbial natural product amylase inhibitor, SA-1. Although the structure of SA-1 is unknown, the compound has been shown to be homogeneous by tlc and is characterized by analytical data.</u></p>				<p>SA-1 Described in <i>Agric. Biol. Chem</i>, 41(11) 2221-2228 (1977)</p>
<p><b>Extract from <i>Streptomyces</i> Strain DMC-72</b></p> <p><u>Kor. J. Mycol. Vol 13, No.4, 203-212, (1985) describes the fermentation and purification of a microbial natural product <math>\alpha</math>-amylase inhibitor from culture filtrates of <i>Streptomyces</i> strain DMC-72. The compound is characterized by analytical data.</u></p>				<p>Described in <i>Kor. J. Mycol.</i> Vol 13, No.4, 203-212, (1985)</p>
<p><b>EP-194794 (WO-8605094 PCT equivalent) reports the structures of a number of N-substituted valiolamine derivatives, referring to EP-56194 for their synthesis. The compounds have the structure:</b></p> <div style="text-align: center;">  </div> <p><u>in which A is an acyclic hydrocarbon group of 1 to 10 carbon atoms which may have one or more members selected from the group consisting of hydroxy, phenoxy, thienyl, furyl, pyridyl, cyclohexyl, and a substituted or unsubstituted phenyl; a five- to six-membered cyclic hydrocarbon group which may have one or more members selected from the group consisting of hydroxy,</u></p>				<p>Compounds disclosed in JP159657; ES8800955A; WO8605094A; and EP194794A</p>

hydroxymethyl, methyl and amino, or a saccharide residue.

**ES-8800955** describes valioline and validamine analogues with the structures:

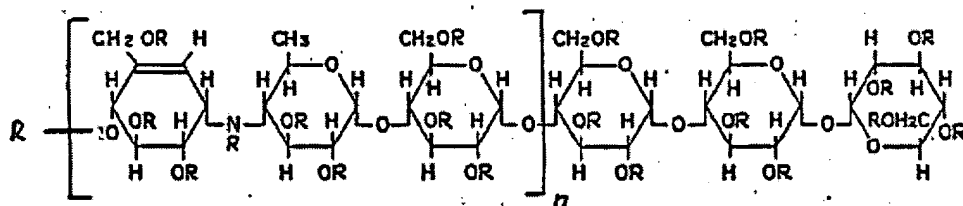


in which A is a hydrocarbon group of 1 to 10 carbon atoms, optionally substituted with hydroxy, phenoxy, thienyl, furyl, pyridyl, cyclohexyl; or a phenyl group optionally substituted; or a cyclic hydrocarbon of 3 – 7 carbon atoms, optionally substituted with hydroxyl, and B is hydrogen or hydroxyl.

Trestatin sulphate salts

EP-301-400-A

**EP-301400** (US equivalent – **US-4885361**) describes the sulphation of the trestatins to give sulphated oligosaccharides with structures:

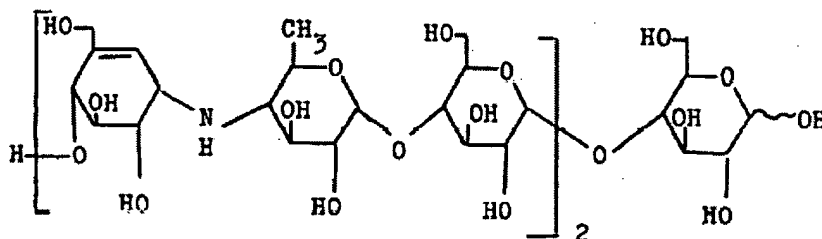


wherein n is a whole number from 1 – 3; R is hydrogen or a residue –SO<sub>3</sub>M and M is a cation; and in which the degree of sulphation is at least 1.

Pseudo-oligosaccharide from *Streptomyces* sp. FH 1717 (DSM 3006)

see  
EP-173950A

**EP-173950** describes the fermentation, recovery and isolation of the pseudooligosaccharide  $\alpha$ -glycosidase inhibitor from *Streptomyces* sp. FH-1717 (DSM-3006). This compound has the structure shown:

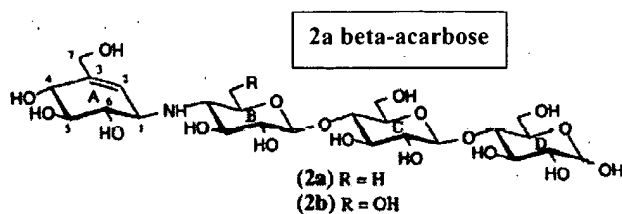


compounds  
disclosed in

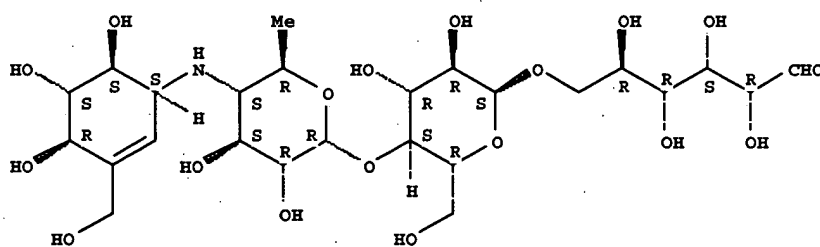
<p>EP-49981 discloses the synthesis of some N-substituted valienamine derivatives:</p> <div data-bbox="630 289 881 499" data-label="Chemical-Block"> </div> <p>in which A is a chain hydrocarbon group having 1 to 10 carbon atoms optionally substituted by hydroxyl, phenoxy, thienyl, furyl, pyridyl, cyclohexyl or phenyl optionally substituted by hydroxyl, lower alkoxy, lower alkyl, halogen or carboxyl; or a cyclic hydrocarbon group having 3 to 7 carbon atoms optionally substituted by hydroxyl.</p>	<p>EP-49981</p>
<p>Angewandte Chemie Int. Ed. <b>20, 744-761 (1981)</b> reviews the chemistry of microbial derived <math>\alpha</math>-glucosidase inhibitors. The oligosaccharides are described elsewhere in this specification. The properties of the low molecular weight inhibitors, nojirimycin and 1-deoxynojirimycin, are reported.</p> <div data-bbox="462 1031 1055 1255" data-label="Chemical-Block"> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>nojirimycin</span> <span>1-deoxynojirimycin</span> </div> </div>	<p><i>amylase inhibitors disclosed in Angew. Chem. Int. Ed. 20, 744-761, (1981).</i></p>
<p><b>Example 7, Fraction 21 compound</b></p> <p>The fermentation, recovery, resin and HPLC purification, and nmr assignment of an oligosaccharide amylase inhibitor from <i>Streptomyces conglobatus</i>, ATCC-31005 is described in Example 7 of the Experimental section of this specification.</p>	<p>see below</p>
<p><b>Example 8 compound</b></p> <p>The fermentation, recovery, resin and HPLC purification, and nmr assignment of a novel oligosaccharide amylase inhibitor from <i>Streptomyces conglobatus</i>, ATCC-31005 is described in Example 8 of the Experimental section of this specification.</p>	<p>see below</p>
<p>Iso-acarbose, and B-acarbose and related structures described in—</p> <p>Tetrahedron Letters, <b>37, 14, 2479-2482 (1996)</b> describes the synthesis of <math>\beta</math>-</p>	<p><i>Tetrahedron Letters, Vol. 37, No14, 2479-2482</i></p>



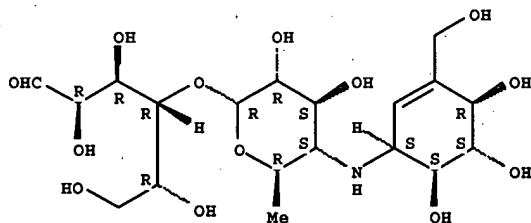
acarbose from 1-epivalienamine.



Both isoacarbose and acarviosine-glucose can be produced by the enzymic transformation of acarbose, as reported in Archives Biochem. Biophys. 371, 2, 277-283 (1999).

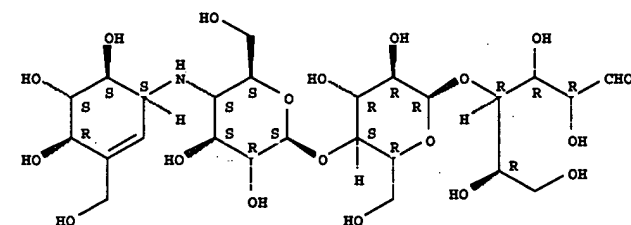


isoacarbose



acarviosine-glucose

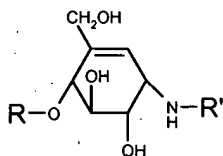
The synthesis of adiposin-2 is reported in JCS Chem. Comm., 9, 605-606 (1988)



adiposin-2

p2479-2482,  
(1996)  
*Archives of  
Biochemistry  
and  
Biophysics*,  
Vol 371, No.2,  
p277-283,  
(1999)  
*J. Chem. Soc.  
Chem.  
Commun.*  
No.9, p605-  
606 (1988)

Pages 10-19 of the Specification:



certain compounds with the moiety shown above appear in Chemical Abstracts\* with the Registry Numbers (RN) shown below.

1	RN	257941-10-9	REGISTRY
2	RN	257936-25-7	REGISTRY
3	RN	250161-57-0	REGISTRY
4	RN	244195-46-8	REGISTRY
5	RN	227087-68-5	REGISTRY
6	RN	223611-34-5	REGISTRY
7	RN	223608-57-9	REGISTRY
8	RN	223608-52-4	REGISTRY
9	RN	221371-17-1	REGISTRY
10	RN	211247-58-4	REGISTRY
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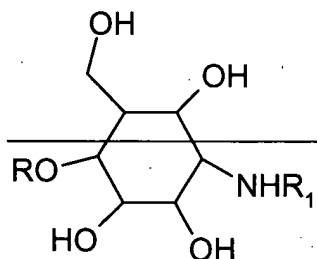
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113	RN	102069-51-2	REGISTRY
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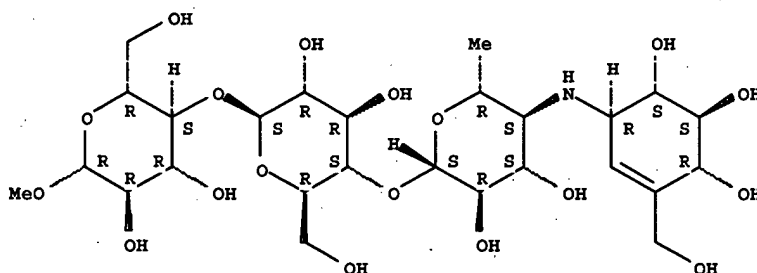


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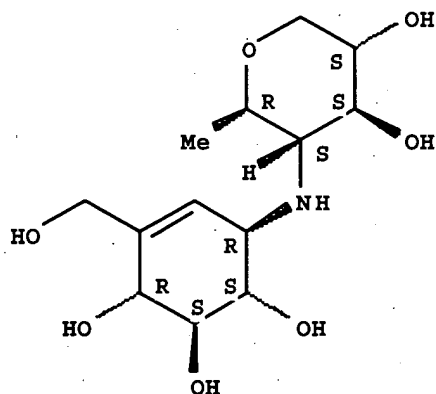
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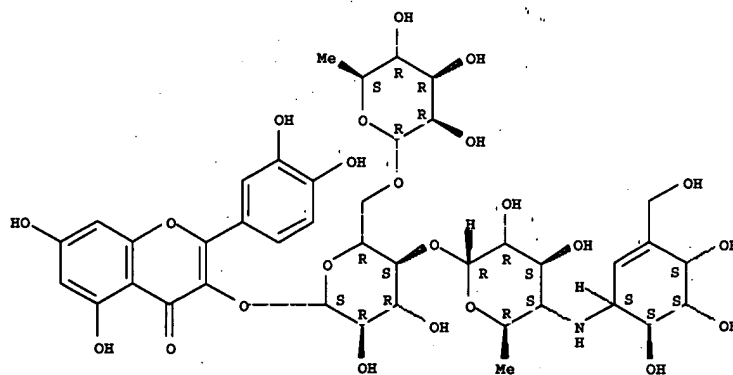
Stick, Robert V.; Tilbrook, D. Matthew G.; Williams, Spencer J. Australian Journal of  
Chemistry (1999), 52(9), 895-904. p896.

RN-257936-25-7



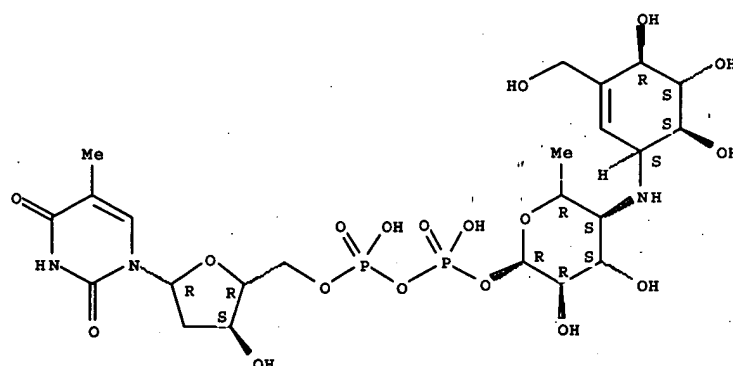
Stick, Robert V.; Tilbrook, D. Matthew G.; Williams, Spencer J. Australian Journal of  
Chemistry (1999), 52(9), 895-904 p896.

RN-250161-57-0



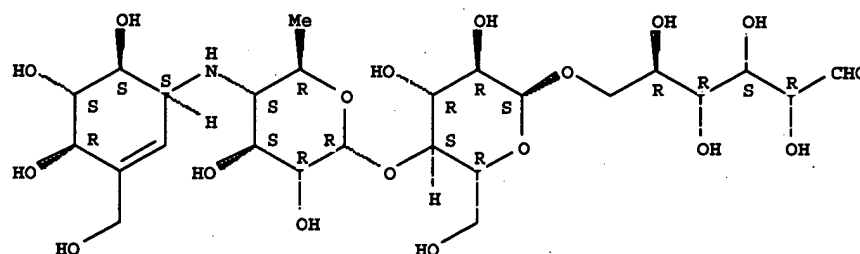
Crueger, Anneliese; Doerschug, Michael; Heiker, Fred-Robert; Von Hugo, Hasso;  
Rauenbusch, Erich. DE -19821038 -A1 p2.

RN-244195-46-8



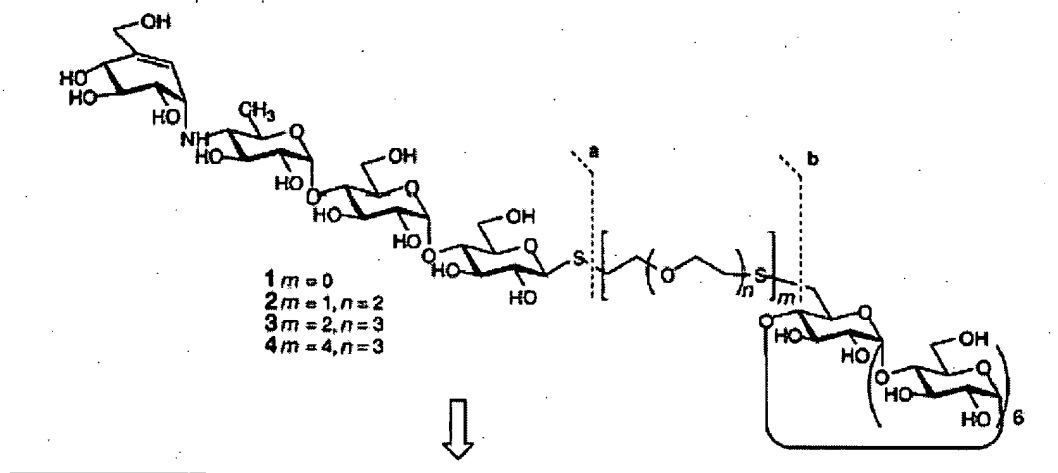
Mahmud, Taifo; Tornus, Ingo; Egelkrout, Erin; Wolf, Eckardt; Uy, Charmaine; Floss,  
Heinz G.; Lee, Sungsook. Journal of the American Chemical Society (1999), 121(30),  
6973-6983.

RN-227087-68-5



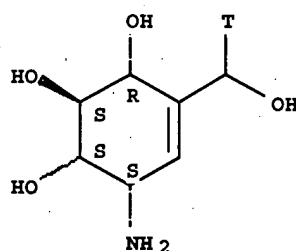
Park, Kwan Hwa; Kim, Myo Jeong; Lee, Hee Seob; Han, Nam Soo; Kim, Doman; Robyt,  
John F. Carbohydrate Research (1998), 313(3-4), 235-246.

RN-223611-34-5



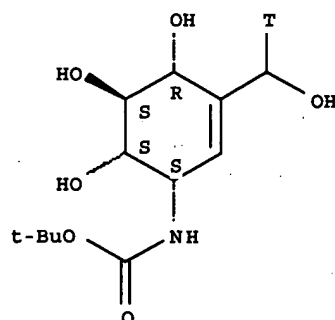
Payre, Nathalie; Cottaz, Sylvain; Boisset, Claire; Borsali, Redouane; Svensson, Birte; Henrissat, Bernard; Driguez, Hugues. Angewandte Chemie, International Edition (1999), 38(7), 974-977. p975.

RN-223608-57-9



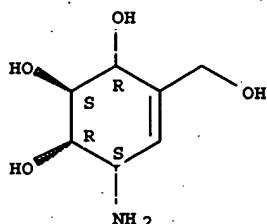
Lee, Sungsook; Tornus, Ingo; Dong, Haijun; Groger, Stefan. Journal of Labelled Compounds & Radiopharmaceuticals (1999), 42(4), 361-372 p363.

RN-223608-52-4



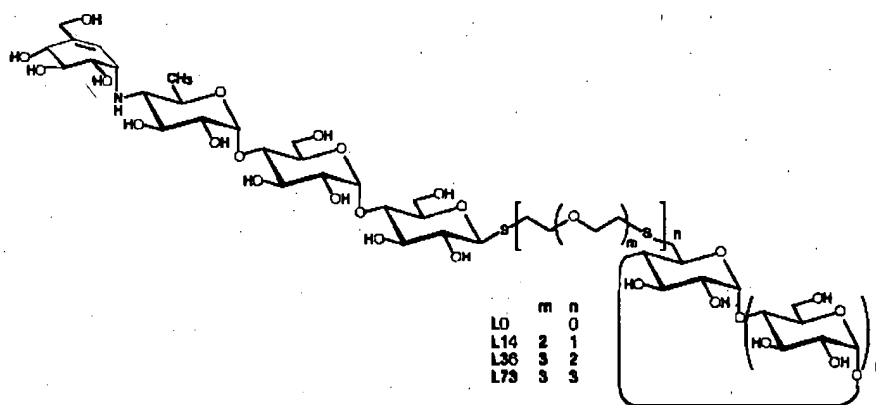
Lee, Sungsook; Tornus, Ingo; Dong, Haijun; Groger, Stefan. Journal of Labelled Compounds & Radiopharmaceuticals (1999), 42(4), 361-372 p363.

RN-221371-17-1



Shing, Tony K. M.; Li, Tin Y.; Kok, Stanton H.-L. Department of Chemistry, The Chinese University of Hong Kong, Shatin, Peop. Rep. China. Journal of Organic Chemistry (1999), 64(6), 1941-1946. compound 2 p1942.

RN-211247-54-0, 211247-54-0, 211247-57-3, 211247-58-4



LO = 211247-54-0

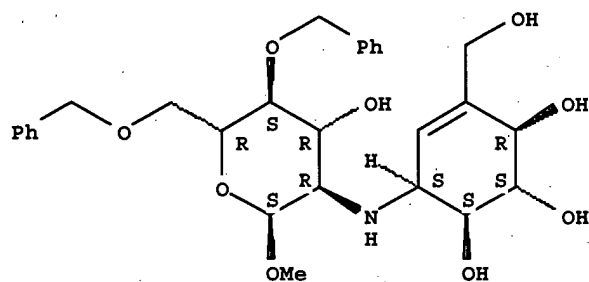
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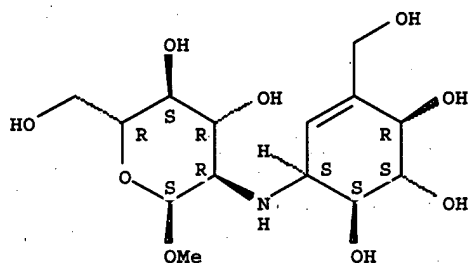
Sigurskjold, Bent W.; Christensen, Trine; Payre, Nathalie; Cottaz, Sylvain; Driguez, Hugues; Svensson, Birte. Biochemistry (1998), 37(29), 10446-10452. structure referenced on page 10448.

RN-211239-26-8



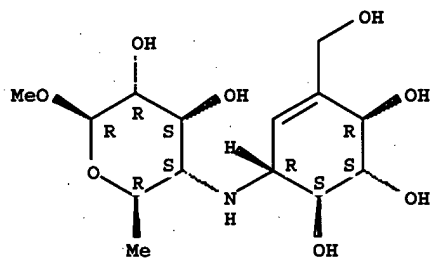
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara. Carbohydrate Research (1998), 307(1,2), 83-95. compound 37 p88.

RN-211237-50-2



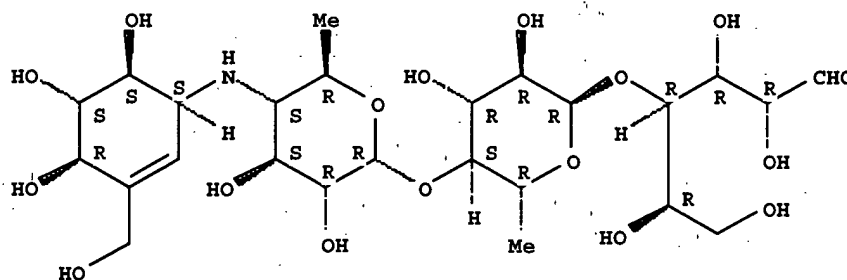
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara. Carbohydrate Research (1998), 307(1,2), 83-95. compound 5 p88.

RN-207681-89-8



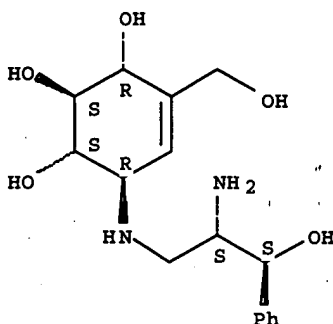
McAuliffe, Joseph C.; Stick, Robert V.; Matthew, D.; Tilbrook, G.; Watts, Andrew G. Department of Chemistry, The University of Western Australia, Nedlands, Australia. Australian Journal of Chemistry (1998), 51(2), 91-95. compound 3 p91.

RN-196944-81-7



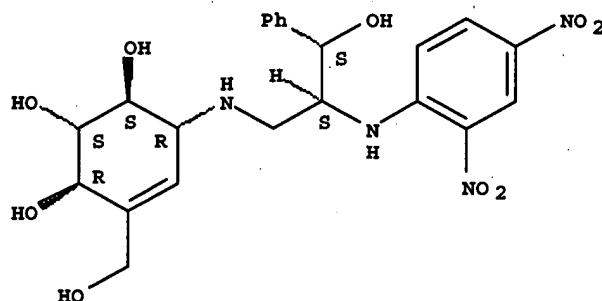
Crueger, Anneliese; Dellweg, Hans-Georg; Lenz, Juergen Georg; Schroeder, Werner; Pape, Hermann; Goeke, Klaus; Schaper, Beate; Hemker, Michael; Piepersberg, Wolfgang; Distler, Juergen; Stratmann, Ansgar. EP-796915-A2 p13.

RN-194539-38-3



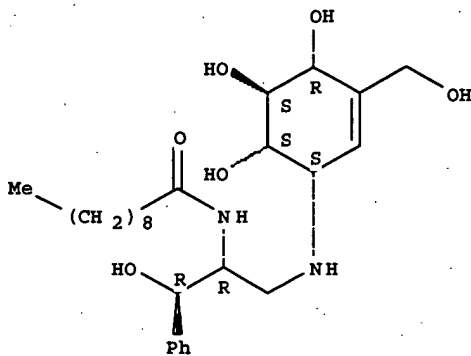
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), 1915-1920. compound 16b p1917.

RN-194539-37-2



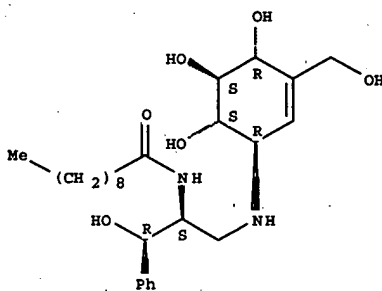
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), 1915-1920. compound 15b p1917.

RN-194539-27-0



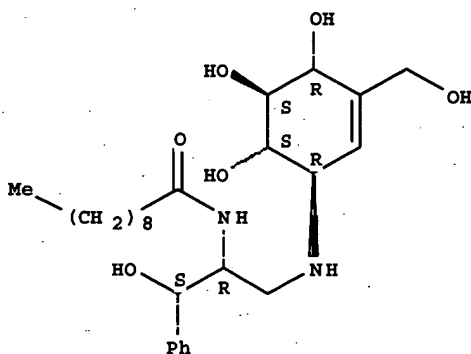
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), 1915-1920. compound 6a p1916.

RN-194539-17-8



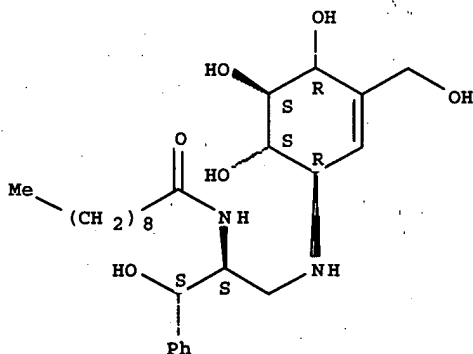
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), compound 4d p1916.

RN-194539-15-6



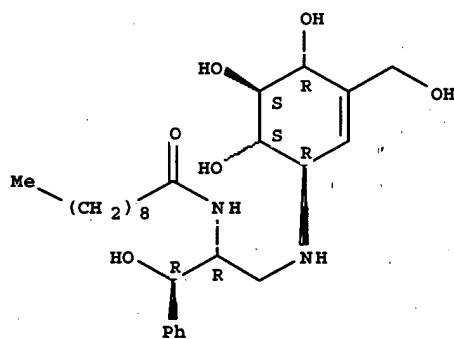
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), compound 4c p1916.

RN-194539-13-4



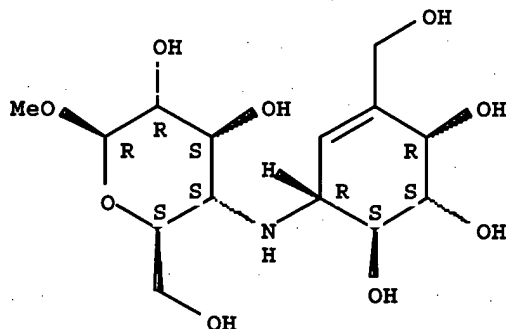
Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), compound 4b p1916.

RN-194539-11-2



Ogawa, Seiichiro; Mito, Tamami; Taiji, Eiichi; Jimbo, Masayuki; Yamagishi, Kiwamu; Inokuchi, Jin-Ichi. Bioorganic & Medicinal Chemistry Letters (1997), 7(14), compound 4a p1916.

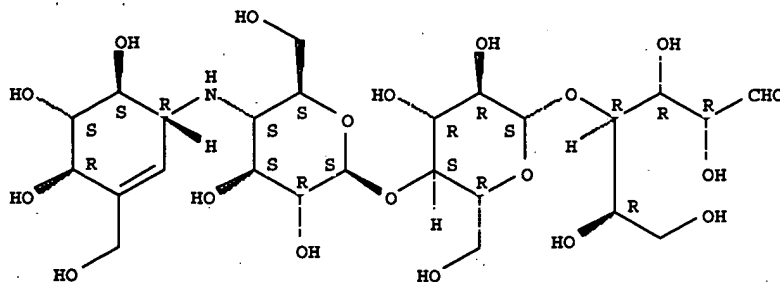
RN-190784-97-5



McAuliffe, Joseph C.; Stick, Robert V. Australian Journal of Chemistry (1997), 50(3), 219-224 compound 27 p220.

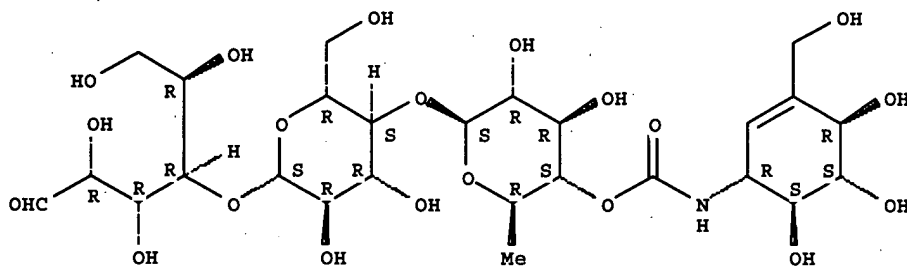


RN-190451-31-1



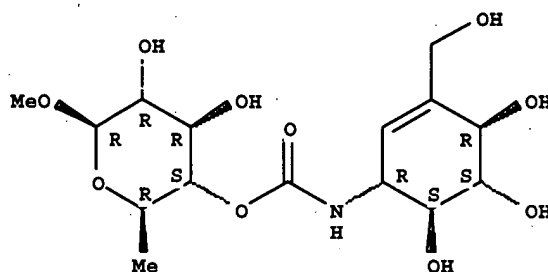
McAuliffe, Joseph C.; Stick, Robert V. Australian Journal of Chemistry (1997), 50(3), 225-228 compound 2 p226.

RN-190385-50-3



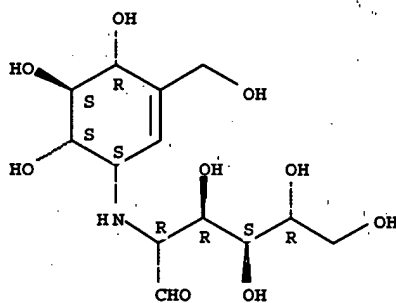
McAuliffe, Joseph C.; Stick, Robert V. Australian Journal of Chemistry (1997), 50(3), 203-207.

RN-190385-49-0



McAuliffe, Joseph C.; Stick, Robert V. Australian Journal of Chemistry (1997), 50(3), 203-207.

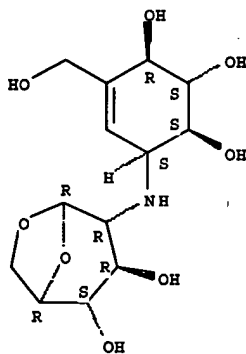
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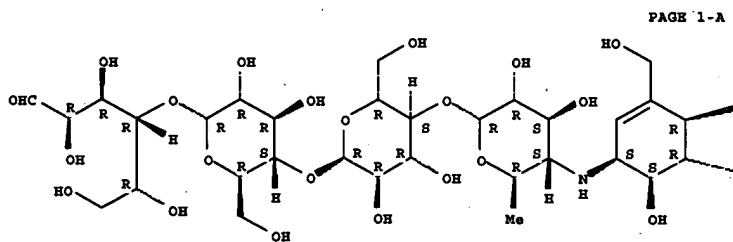
O. Srivastava and R. Sweda; US-5929037 example 45 column 30.

RN-186420-19-9



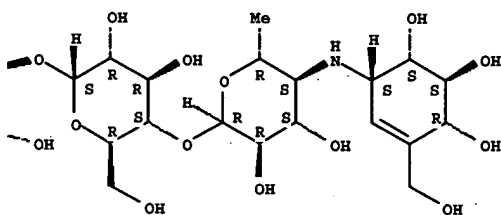
O. Srivastava and R. Sweda; US-5929037 example 44 column 29.

RN 179382-46-8



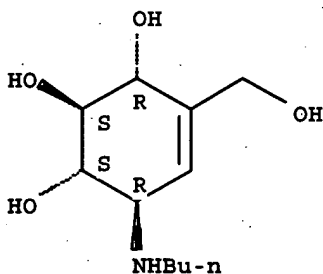
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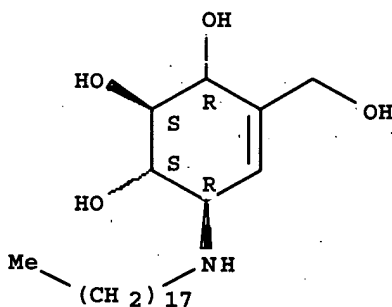
Banks et. al. EP-1157696-A2 p24.

RN-178034-25-8



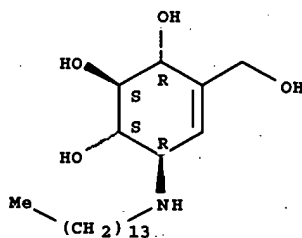
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara; Watanabe, Shinsuke; Yamazaki, Chihiro; Yamagishi, Kimamu; Inokuchi, Jin-ichi. Bioorganic & Medicinal Chemistry Letters (1996), 6(8), 929-932 compound 3a p929.

RN-177898-45-2



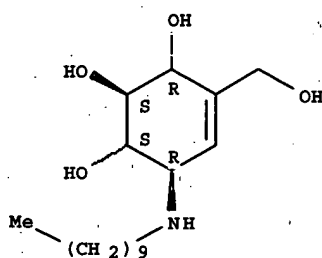
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara; Watanabe, Shinsuke; Yamazaki, Chihiro; Yamagishi, Kimamu; Inokuchi, Jin-ichi. Bioorganic & Medicinal Chemistry Letters (1996), 6(8), 929-932 compound 3f p929.

RN-177898-44-1



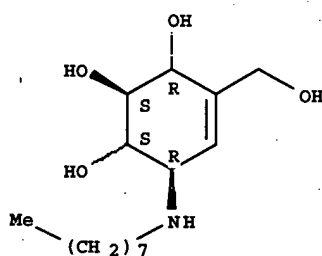
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara; Watanabe, Shinsuke; Yamazaki, Chihiro; Yamagishi, Kimamu; Inokuchi, Jin-ichi. Bioorganic & Medicinal Chemistry Letters (1996), 6(8), 929-932 compound 3e p929.

RN-177898-43-0



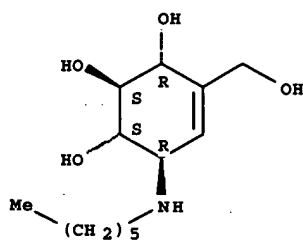
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara; Watanabe, Shinsuke; Yamazaki, Chihiro; Yamagishi, Kimamu; Inokuchi, Jin-ichi. Bioorganic & Medicinal Chemistry Letters (1996), 6(8), 929-932 compound 3d p929.

RN-177898-42-9



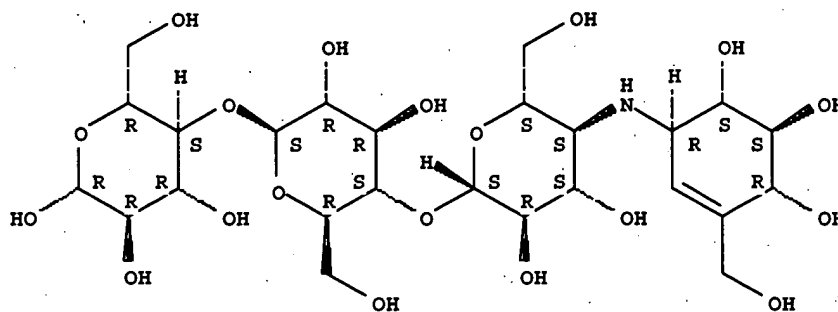
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RN-177898-41-8



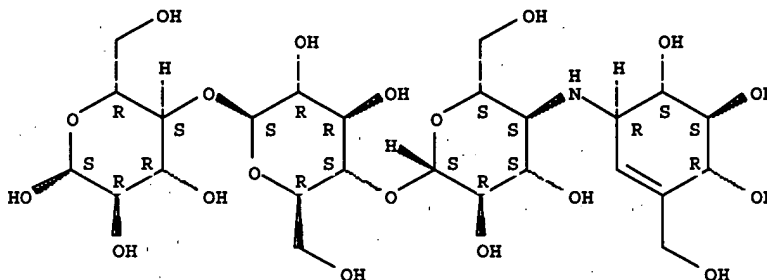
Ogawa, Seiichiro; Ashiura, Makoto; Uchida, Chikara; Watanabe, Shinsuke; Yamazaki, Chihiro; Yamagishi, Kimamu; Inokuchi, Jin-ichi. Bioorganic & Medicinal Chemistry Letters (1996), 6(8), 929-932 compound 3b p929.

RN-176587-86-3



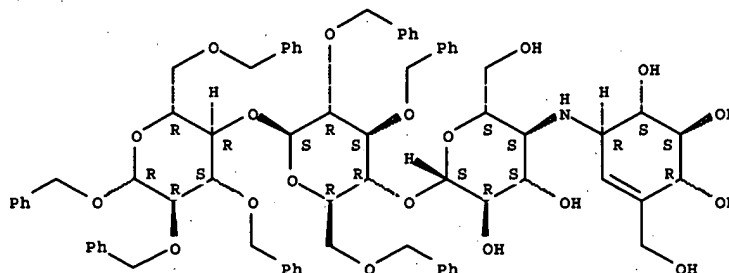
McAuliffe, Joseph C.; Stick, Robert V.; Stone, Bruce A. Tetrahedron Letters (1996), 37(14), 2479-82 compound  $\beta$ -epimer of 2b p2479.

RN-176389-24-5



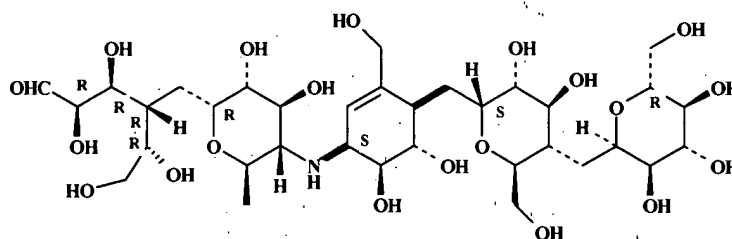
McAuliffe, Joseph C.; Stick, Robert V.; Stone, Bruce A. Tetrahedron Letters (1996), 37(14), 2479-82 compound  $\alpha$ -epimer of 2b p2479.

RN-176389-23-4



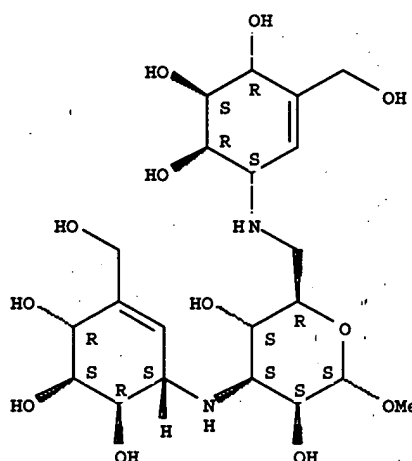
McAuliffe, Joseph C.; Stick, Robert V.; Stone, Bruce A. Tetrahedron Letters (1996), 37(14), 2479-82 compound 16 p2480.

RN-172787-72-3



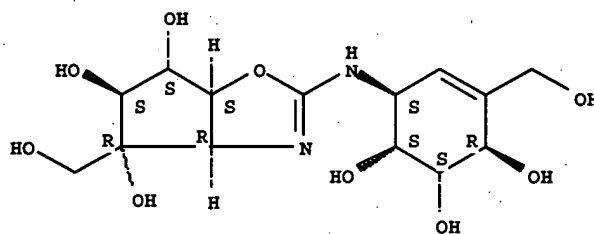
Casset, Florence; Imbert, Anne; Haser, Richard; Payan, Françoise; Perez, Serge.  
European Journal of Biochemistry (1995), 232(1), 284-93. compound a p286.

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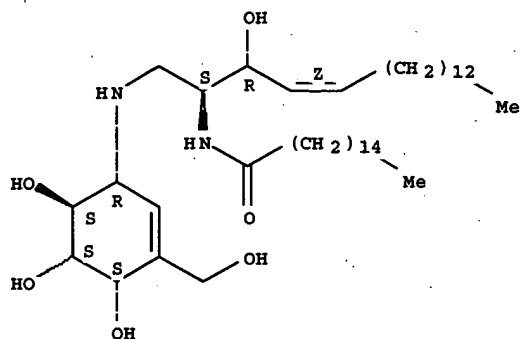
Ogawa, Seiichiro; Sasaki, Shin-ichi; Tsunoda, Hidetoshi. Carbohydrate Research  
(1995), 274 183-96 compound 4 p185.

RN-170932-13-5



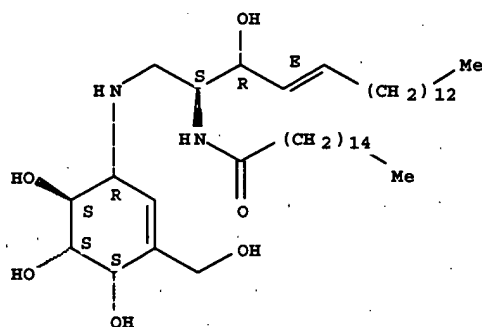
Uchida, Chikara; Kitahashi, Hideo; Watanabe, Shinsuke; Ogawa, Seiichiro. Journal of  
the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry  
(1995), (13), 1707-17 compound 10 p1708.

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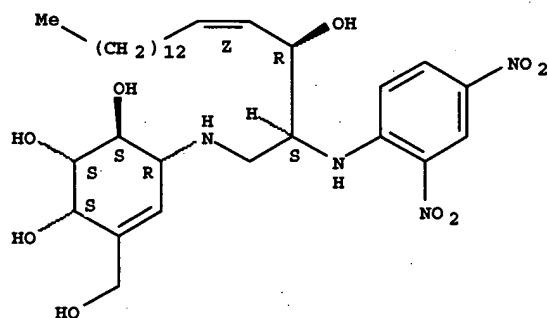
Tsunoda, Hidetoshi; Inokuchi, Jinichi; Yamagishi, Kiwamu; Ogawa, Seiichiro. Liebigs Annalen (1995), (2), 279-84 279.

RN-162428-09-3



Tsunoda, Hidetoshi; Inokuchi, Jinichi; Yamagishi, Kiwamu; Ogawa, Seiichiro. Liebigs Annalen (1995), (2), 279-84 p279.

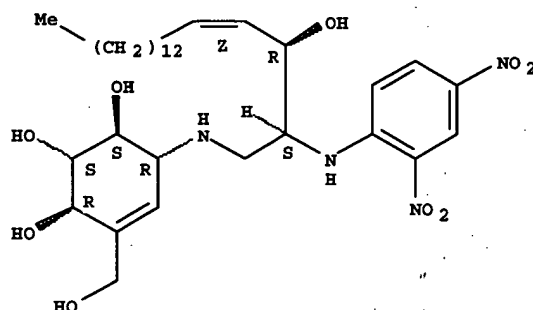
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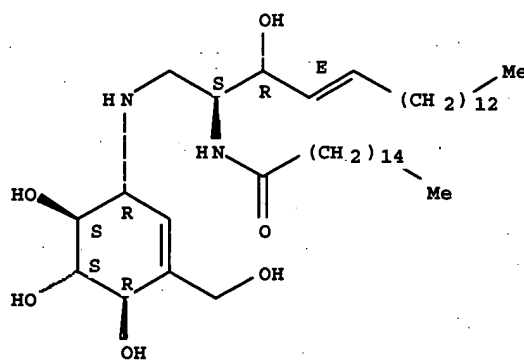
Tsunoda, Hidetoshi; Inokuchi, Jinichi; Yamagishi, Kiwamu; Ogawa, Seiichiro. Liebigs Annalen (1995), (2), 279-84 p279.

Chemical structure of compound 10, a 1,2,3,4-tetrahydro-6-methyl-2H-benzothiazine derivative. The structure features a benzothiazine core with a methyl group at C6, a hydroxyl group at C2, and a 4-nitrophenyl group at C4. The stereochemistry is indicated with wedges and dashes.

RN-162428-03-7



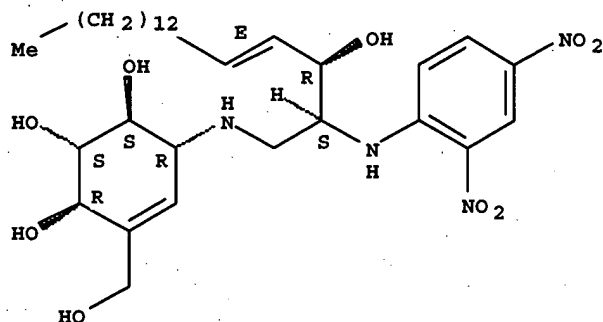
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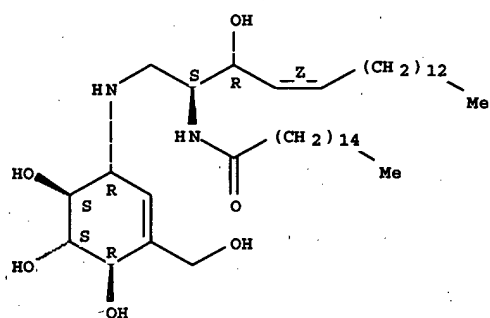


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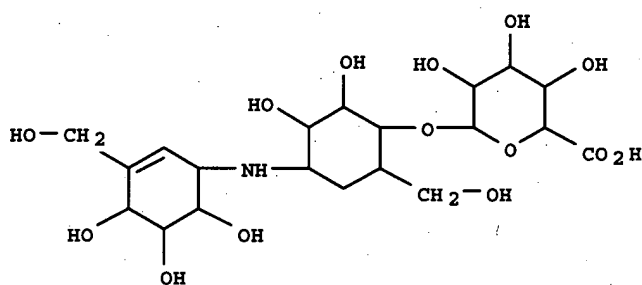
Ogawa, Seiichiro; Tsunoda, Hidetoshi; Inokuchi, Jinichi. Journal of the Chemical Society, Chemical Communications (1994), (11), 1317-18 compound 11 p1317.

RN 157639-64-0



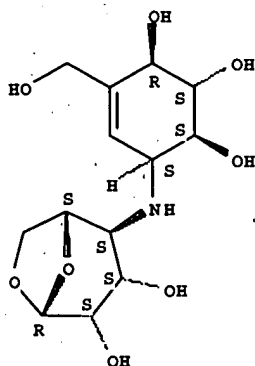
Ogawa, Seiichiro; Tsunoda, Hidetoshi; Inokuchi, Jinichi. Journal of the Chemical Society, Chemical Communications (1994), (11), 1317-18. compound Z-2 p1317.

RN-156969-91-4



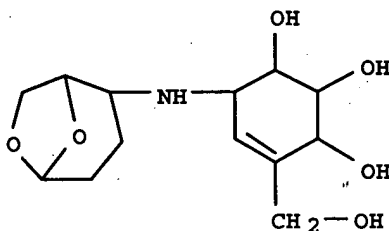
Ishiguro, Toshihiro; Oka, Masahide; Yamaguchi, Takamasa; Nogami, Ikuo. EP-599646-A2 p11 Table 4 row 6.

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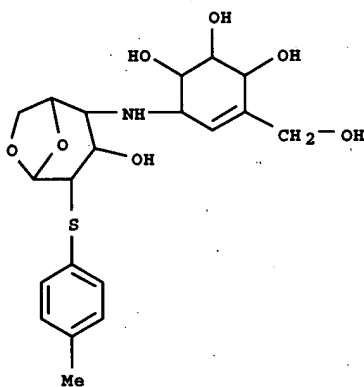
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 4 p178.

RN-155874-49-0



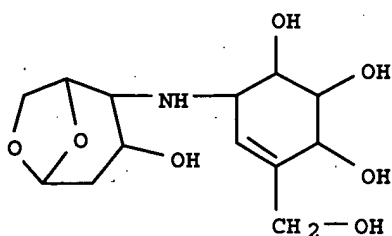
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 11 p178.

RN-155874-47-8



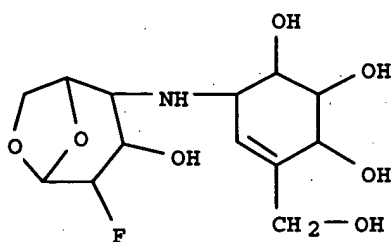
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 9 p178.

RN-155874-48-9



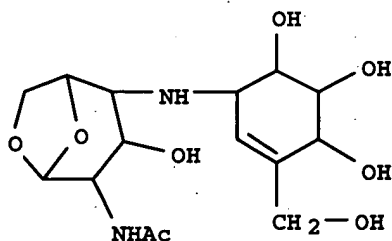
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 10 p178.

RN-155874-46-7



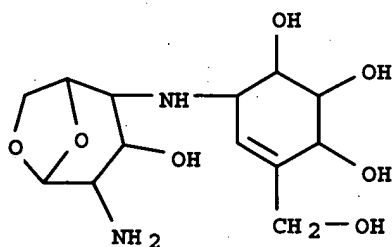
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 8 p178.

RN-155874-45-6



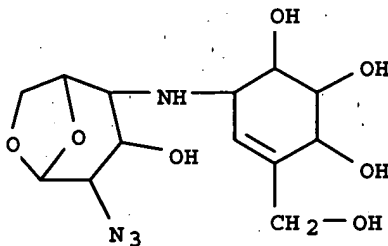
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 7 p178.

RN-155874-44-5



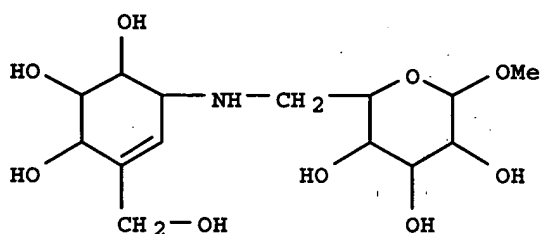
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 6 p178.

RN-155874-43-4



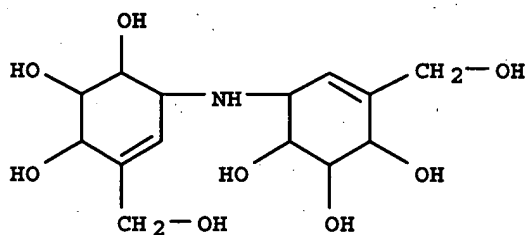
Ogawa, Seiichiro; Aso, Daisuke. Carbohydrate Research (1993), 250(1), 177-84.  
compound 5 p178.

RN 152042-99-4



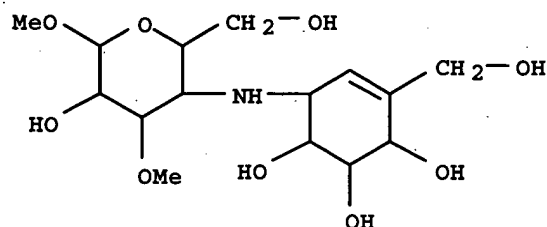
Cottaz, Sylvain; Brimacombe, John S.; Ferguson, Michael A. J. Carbohydrate Research (1993), 247 341-5.

RN-148291-19-4



Ogawa, Seiichiro; Sato, Koji; Miyamoto, Yasunobu. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chem. (1972-1999) (1993), (6), 691-6.

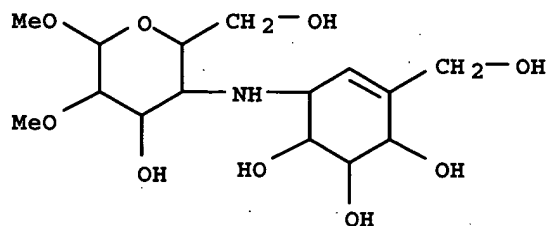
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Shibata, Yasushi; Kosuge, Yasuhiro; Mizukoshi, Toshimi; Ogawa, Seiichiro.  
Carbohydrate Research (1992), 228(2), 377-98. compound 9 p378.

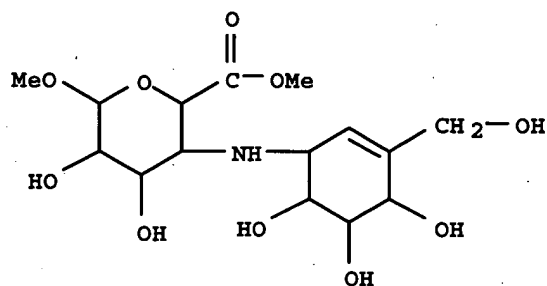
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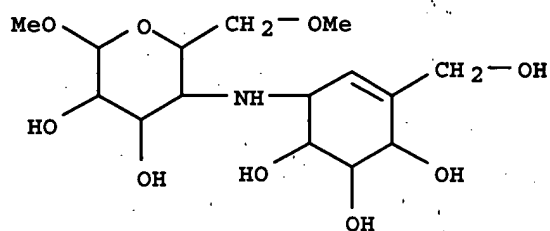
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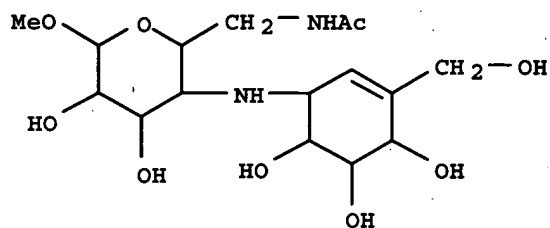
Shibata, Yasushi; Kosuge, Yasuhiro; Mizukoshi, Toshimi; Ogawa, Seiichiro.  
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RN-142504-66-3



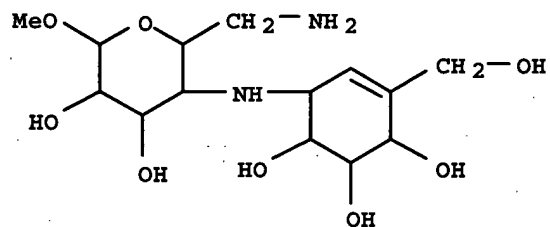
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Carbohydrate Research (1992), 228(2), 377-98. compound 6 p378.

RN-142504-65-2



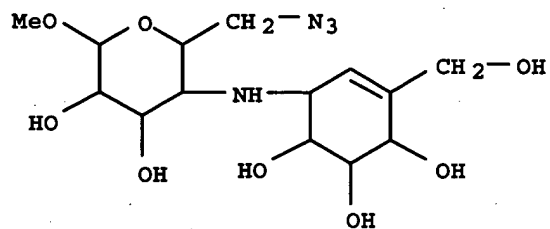
Shibata, Yasushi; Kosuge, Yasuhiro; Mizukoshi, Toshimi; Ogawa, Seiichiro.  
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RN-142504-64-1



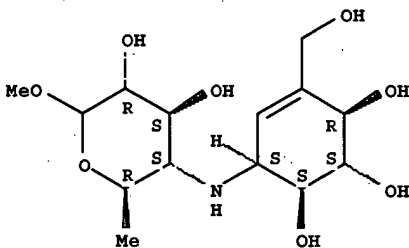
Shibata, Yasushi; Kosuge, Yasuhiro; Mizukoshi, Toshimi; Ogawa, Seiichiro.  
Carbohydrate Research (1992), 228(2), 377-98. compound 4 p378.

RN-142504-63-0



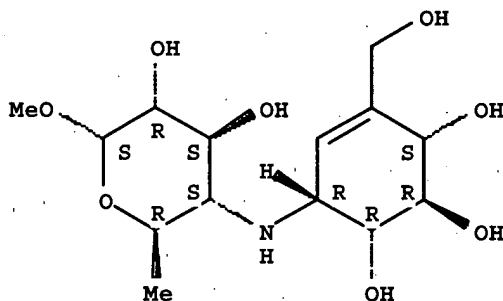
Shibata, Yasushi; Kosuge, Yasuhiro; Mizukoshi, Toshimi; Ogawa, Seiichiro.  
Carbohydrate Research (1992), 228(2), 377-98. compound 3 p378.

RN-142200-26-8



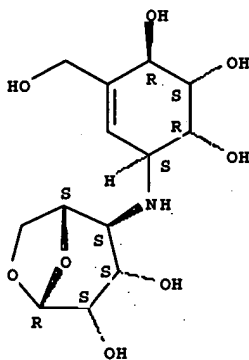
Svensson, Birte; Sierks, Michael R. Dep. Chem., Carlsberg Lab., Valby, Den.  
Carbohydrate Research (1992), 227 p29-44.

RN 141902-24-1



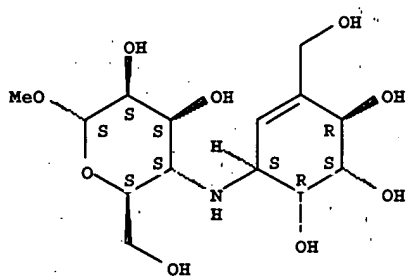
Shibata Y; Kosuge Y; Mizukoshi T; Ogawa S Carbohydrate Research (1992 Apr 27),  
228(2), 377-98 compound 1 p378.

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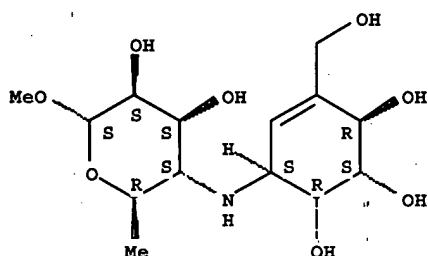
Ogawa, Seiichiro; Nakamura, Yoshikazu. Fac. Sci. Technol., Keio Univ., Yokohama,  
Japan. Carbohydrate Research (1992), 226(1), 79-89 compound 5a p79.

RN-141316-51-0



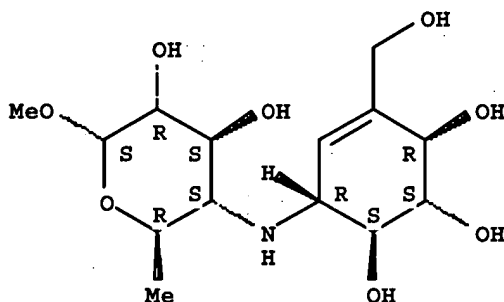
Ogawa, Seiichiro; Nakamura, Yoshikazu. Fac. Sci. Technol., Keio Univ., Yokohama, Japan. Carbohydrate Research (1992), 226(1), 79-89 compound 4a p79.

RN-141316-50-9



Ogawa, Seiichiro; Nakamura, Yoshikazu. Fac. Sci. Technol., Keio Univ., Yokohama, Japan. Carbohydrate Research (1992), 226(1), 79-89 compound 3a p79.

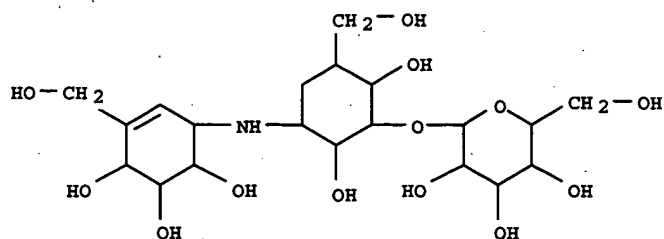
RN-140148-00-1



Ogawa, Seiichiro; Uchida, Chikara; Shibata, Yasushi. Carbohydrate Research (1992), 223 279-86.

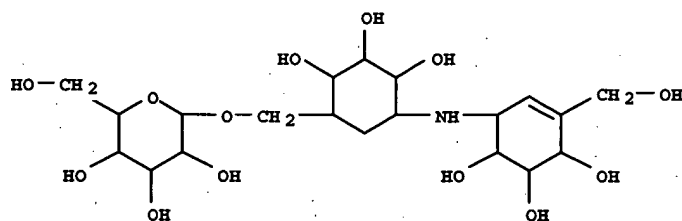


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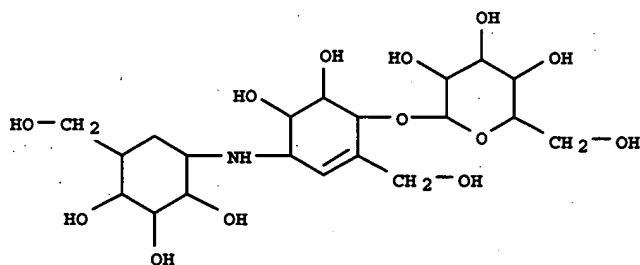
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 p1407.

RN-139628-09-4



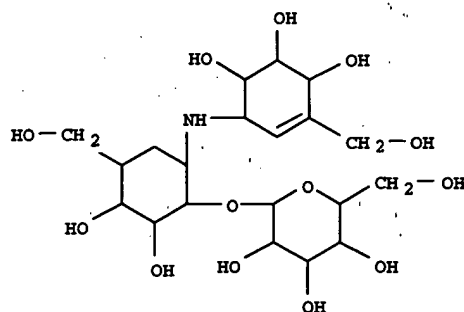
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 p1407.

RN-139261-95-3



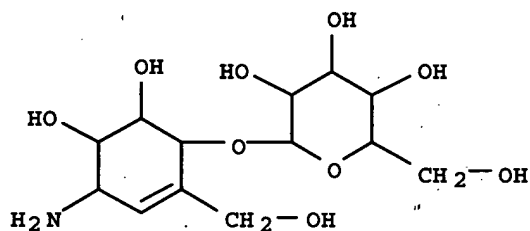
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 p1407.

RN-139261-94-2



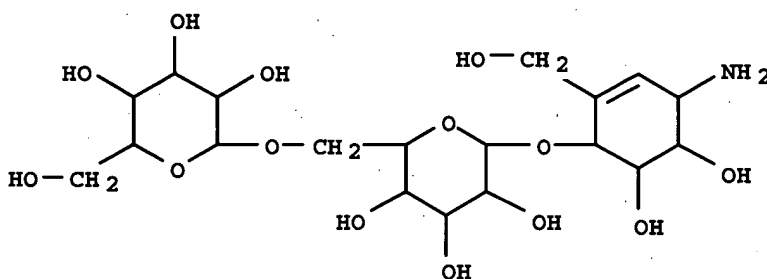
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 p1407.

RN-134308-81-9



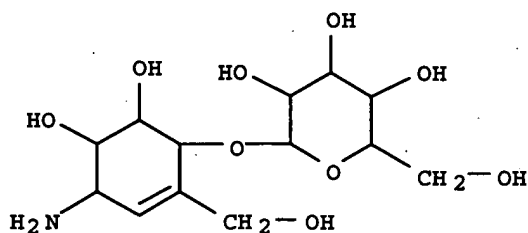
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 p1409.

RN 134221-44-6



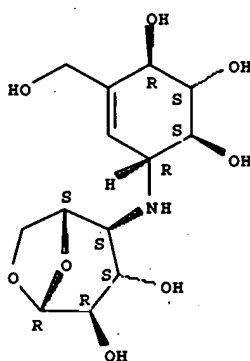
Furumoto, Tadashi; Yoshioka, Tadashi; Kamata, Kanae; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(3), 371-3.

RN-134221-43-5



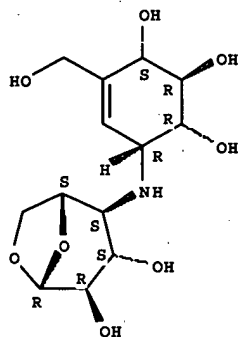
Furumoto, Tadashi; Kameda, Yukihiro; Matsui, Katsuhiko. Chemical & Pharmaceutical Bulletin (1992), 40(7), 1871-5 p1872.

RN-132016-21-8



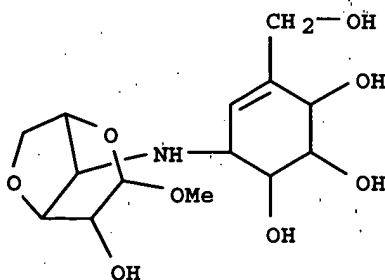
Ogawa, Seiichiro; Shibata, Yasushi; Kosuge, Yasuhiro; Yasuda, Kuninobu; Mizukoshi, Toshimi; Uchida, Chikara. Journal of the Chemical Society, Chemical Communications (1990), (20), 1387-8 p1388.

RN-132016-20-7



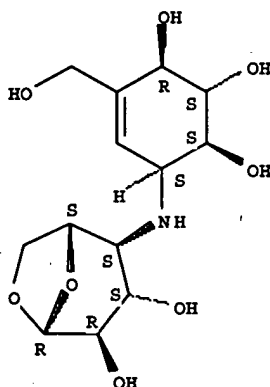
Ogawa, Seiichiro; Shibata, Yasushi; Kosuge, Yasuhiro; Yasuda, Kuninobu; Mizukoshi, Toshimi; Uchida, Chikara. Journal of the Chemical Society, Chemical Communications (1990), (20), 1387-8 p1388.

RN-131922-36-6



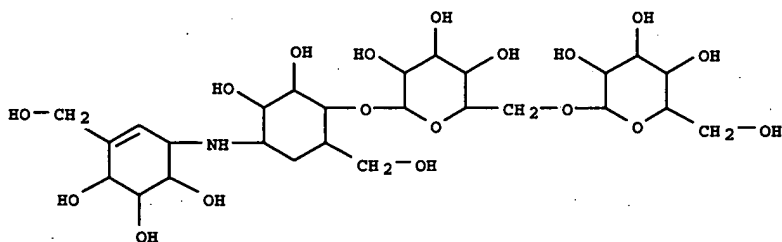
Ogawa, Seiichiro; Shibata, Yasushi; Kosuge, Yasuhiro; Yasuda, Kuninobu; Mizukoshi, Toshimi; Uchida, Chikara. Journal of the Chemical Society, Chemical Communications (1990), (20), 1387-8 p1388.

RN-131922-32-2



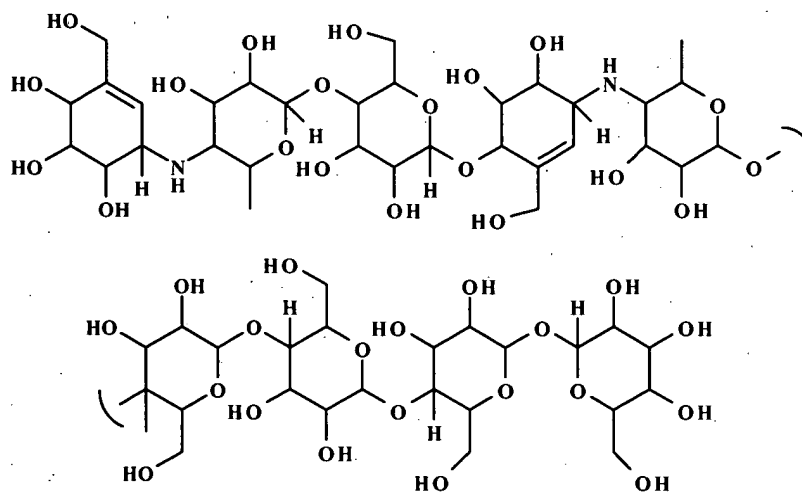
Ogawa, Seiichiro; Shibata, Yasushi; Kosuge, Yasuhiro; Yasuda, Kuninobu; Mizukoshi, Toshimi; Uchida, Chikara. Journal of the Chemical Society, Chemical Communications (1990), (20), 1387-8 p1388.

RN-130812-69-0



Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1990), 43(8), 1039-41 p1040.

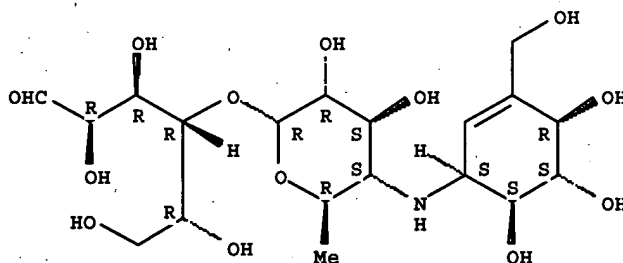
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H<sub>2</sub>SO<sub>4</sub> salt

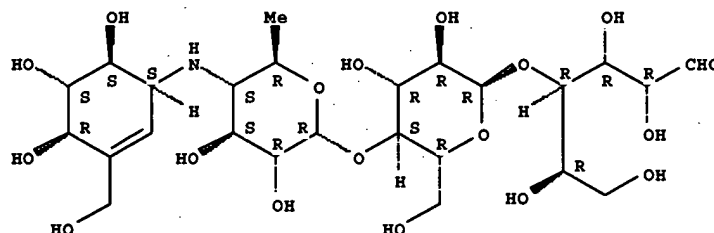
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RN-129446-91-9



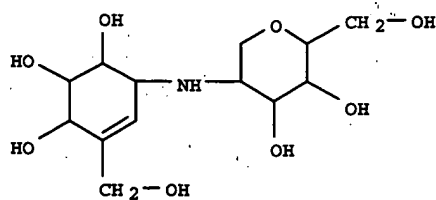
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RN-129446-90-8



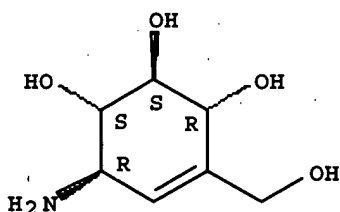
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RN 128826-89-1



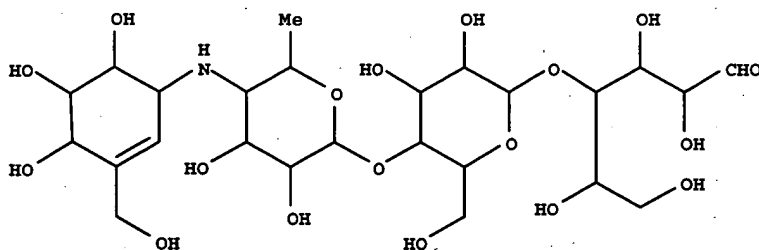
Vertesy et. al. US-5,091,524.

RN-128572-99-6



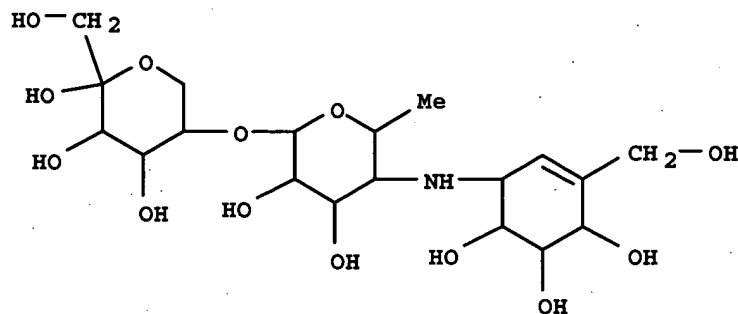
Nicotra, Francesco; Panza, Luigi; Ronchetti, Fiamma; Russo, Giovanni. Gazzetta Chimica Italiana (1989), 119(11), 577-9 compound 2 p577.

RN-124857-60-9



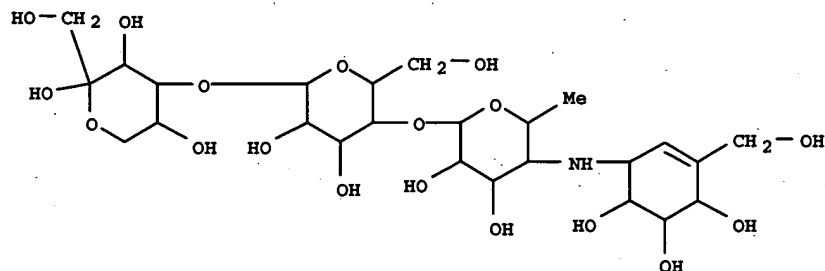
Maul, W.; Mueller, L.; Pfitzner, J.; Rauenbusch, E.; Schutt, H. Arzneimittel-Forschung (1989), 39(10), 1251-3 p1251.

RN-124534-96-9



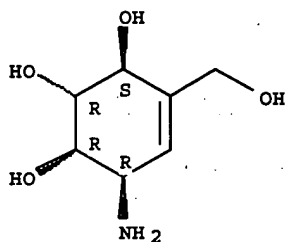
Takahashi, Yoshinori; Sakaguchi, Fumiaki; Morimoto, Keiko; Hashimoto, Komei; Funaba, Tsukasa; Hayauchi, Yutaka. Iyakuhin Kenkyu (1989), 20(4), 769-83.

RN-123941-04-8



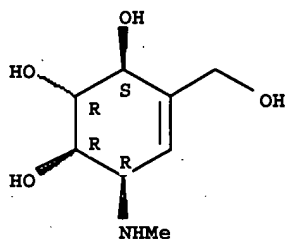
Takahashi, Yoshinori; Sakaguchi, Fumiaki; Morimoto, Keiko; Hashimoto, Komei; Funaba, Tsukasa; Hayauchi, Yutaka. Iyakuhin Kenkyu (1989), 20(4), 769-83.

RN-112067-63-7



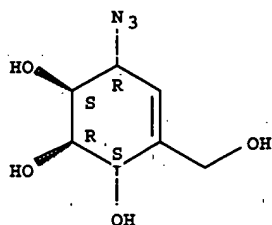
Jin, Wen Zao; Rinehart, Kenneth L., Jr.; Toyokuni, Tatsushi. Journal of Antibiotics (1987), 40(3), 329-39 compound 4 p336.

RN-112014-09-2



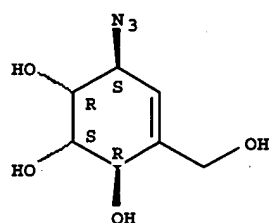
Jin, Wen Zao; Rinehart, Kenneth L., Jr.; Toyokuni, Tatsushi. Journal of Antibiotics (1987), 40(3), 329-39 compound 6 p337.

RN-109718-71-0



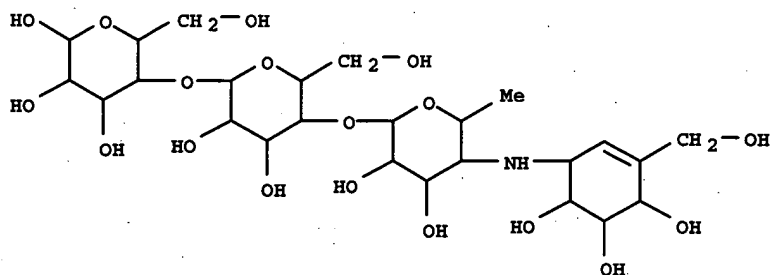
Ogawa, Seiichiro; Sugizaki, Hiroyasu. Chemistry Letters (1986), (11), 1977-80  
compound 5b p1978.

RN-109718-70-9



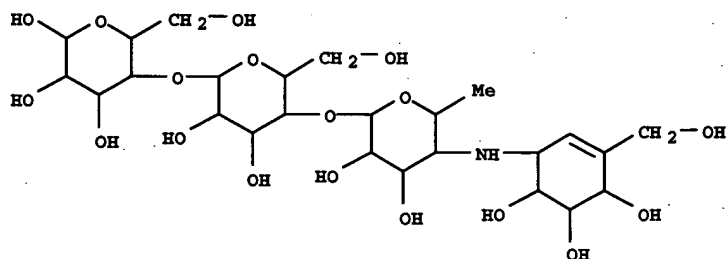
Ogawa, Seiichiro; Sugizaki, Hiroyasu. Chemistry Letters (1986), (11), 1977-80 p1978.

RN-106864-10-2



Pfeffer, M.; Siebert, G. Zeitschrift fuer Ernaehrungswissenschaft (1986), 25(3), 189-  
95.

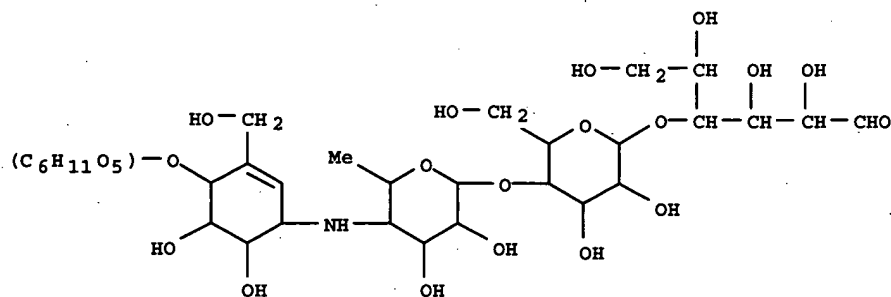
RN-106864-09-9





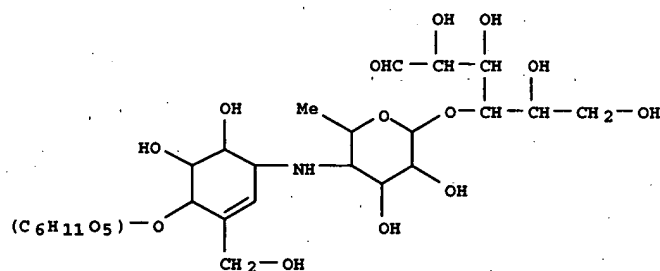
Pfeffer, M.; Siebert, G. Zeitschrift fuer Ernaehrungswissenschaft (1986), 25(3), 189-95.

RN-106861-26-1



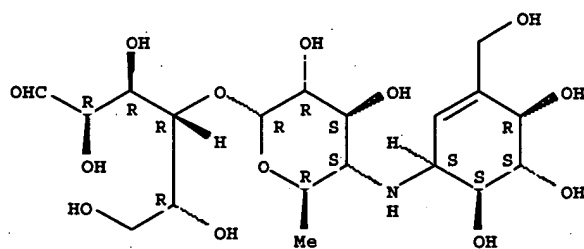
Pfeffer, M.; Siebert, G. Zeitschrift fuer Ernaehrungswissenschaft (1986), 25(3), 189-95.

RN-106818-23-9



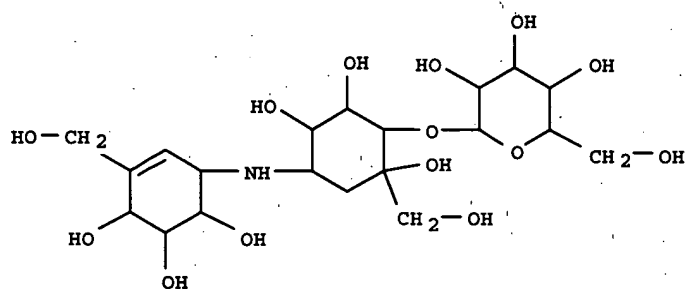
Pfeffer, M.; Siebert, G. Zeitschrift fuer Ernaehrungswissenschaft (1986), 25(3), 189-95.

RN-106565-44-0



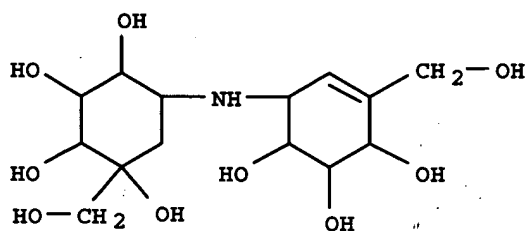
Pfeffer, M.; Siebert, G. Zeitschrift fuer Ernaehrungswissenschaft (1986), 25(3), 189-95.

RN-106357-02-2



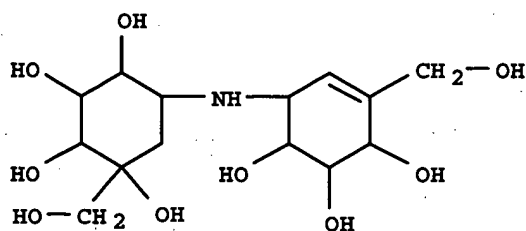
Fukase, Hiroshi; Horii, Satoshi. Journal of Organic Chemistry (1992), 57(13), 3651-8.

RN-106357-01-1



Fukase, Hiroshi; Horii, Satoshi. Journal of Organic Chemistry (1992), 57(13), 3651-8.

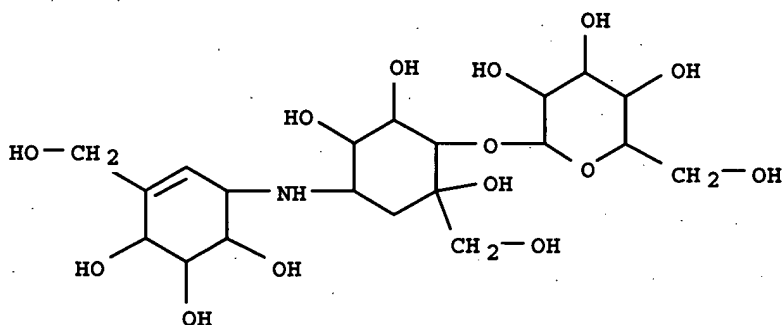
RN-106054-18-6



Kameda, Yukihiro; Asano, Naoki; Yamaguchi, Takuji; Matsui, Katsuhiko; Horii, Satoshi;

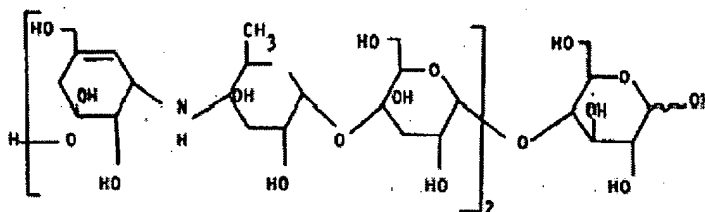
Fukase, Hiroshi. Journal of Antibiotics (1986), 39(10), 1491-4 p1491.

RN-106054-17-5



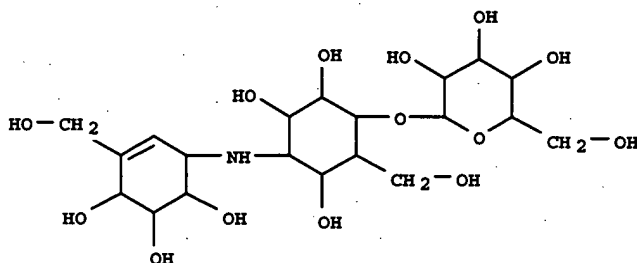
Kameda, Yukihiro; Asano, Naoki; Yamaguchi, Takuji; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1986), 39(10), 1491-4 p1491.

RN-105580-86-7



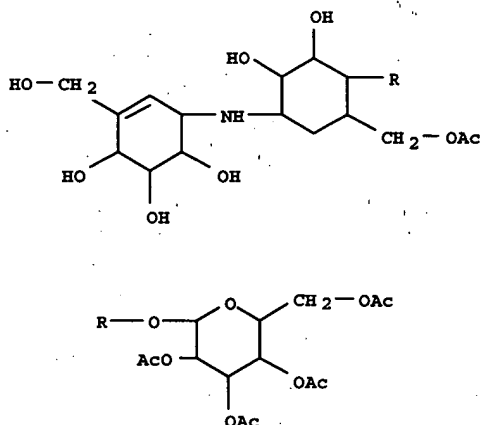
Vertesy, Laszlo; Bender, Rudolf; Fehlhaber, Hans Wolfram. EP-173950-A2 p1.

RN-102583-47-1 (DR-114779-27-0)



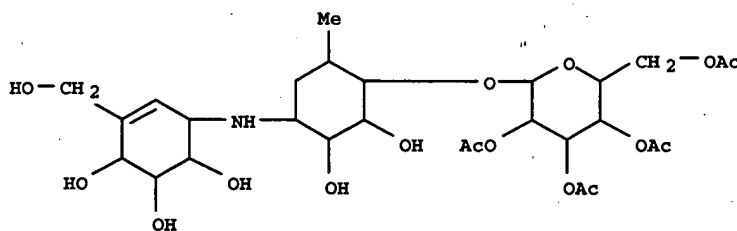
Ogawa, Seiichiro; Miyamoto, Yasunobu; Nose, Taisuke. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1988), (9), 2675-80 compound 1a p2675.

RN-102069-54-5



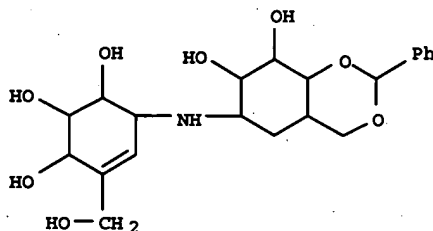
Ogawa, Seiichiro; Nose, Taisuke; Ogawa, Takao; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Suami, Tetsuo. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1985), (11), 2369-74.

RN-102069-53-4



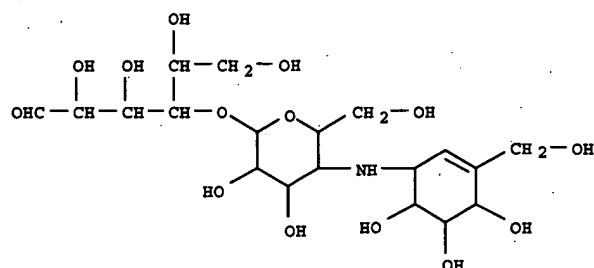
Ogawa, Seiichiro; Nose, Taisuke; Ogawa, Takao; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Suami, Tetsuo. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1985), (11), 2369-74.

RN-102069-51-2



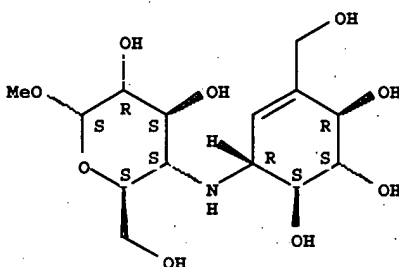
Ogawa, Seiichiro; Nose, Taisuke; Ogawa, Takao; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Suami, Tetsuo. Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1985), (11), 2369-74.

RN-101401-49-4



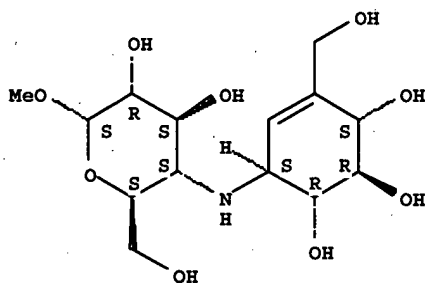
Ogawa, Seiichiro; Iwasawa, Yoshikazu; Toyokuni, Tatsushi; Suami, Tetsuo.  
Carbohydrate Research (1985), 141(1), 29-40.

RN-101144-24-5



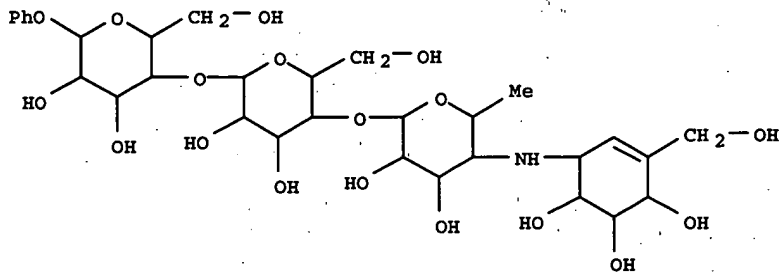
Ogawa, Seiichiro; Yasuda, Kuninobu; Takagaki, Tohei; Iwasawa, Yoshikazu; Suami,  
Tetsuo. Carbohydrate Research (1985), 141(2), 329-34 p330.

RN-101144-22-3



Ogawa, Seiichiro; Yasuda, Kuninobu; Takagaki, Tohei; Iwasawa, Yoshikazu; Suami,  
Tetsuo. Carbohydrate Research (1985), 141(2), 329-34.

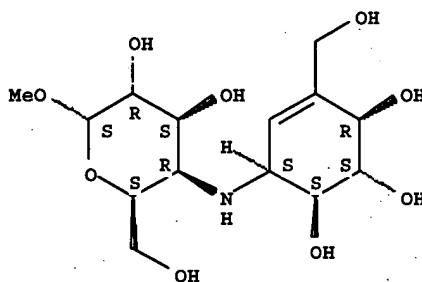
RN-99746-06-2



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Schmidt, Richard R.; Laesecke, Klaus. CH-648326-A.

RN-89920-25-2

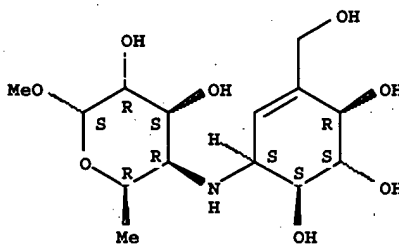


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Horii, Satoshi; Fukase, Hiroshi; Matsuo, Takao; Kameda, Yukihiro; Asano, Naoki;

Matsui, Katsuhiko. Journal of Medicinal Chemistry (1986), 29(6), 1038-46 p1040.

RN-89920-24-1

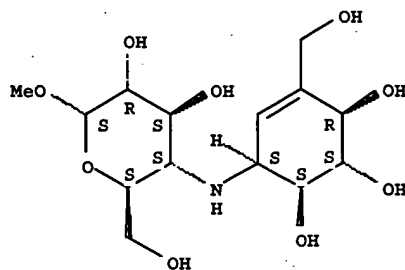


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Horii, Satoshi; Fukase, Hiroshi; Matsuo, Takao; Kameda, Yukihiro; Asano, Naoki;

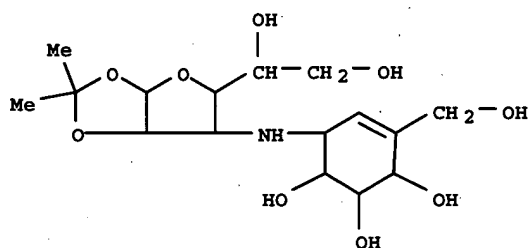
Matsui, Katsuhiko. Journal of Medicinal Chemistry (1986), 29(6), 1038-46 p1040.

RN-89859-74-5



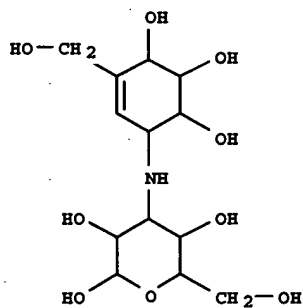
Ogawa, Seiichiro; Iwasawa, Yoshikazu; Toyokuni, Tatsushi; Suami, Tetsuo.  
Carbohydrate Research (1985), 141(1), 29-40.

RN-89859-73-4



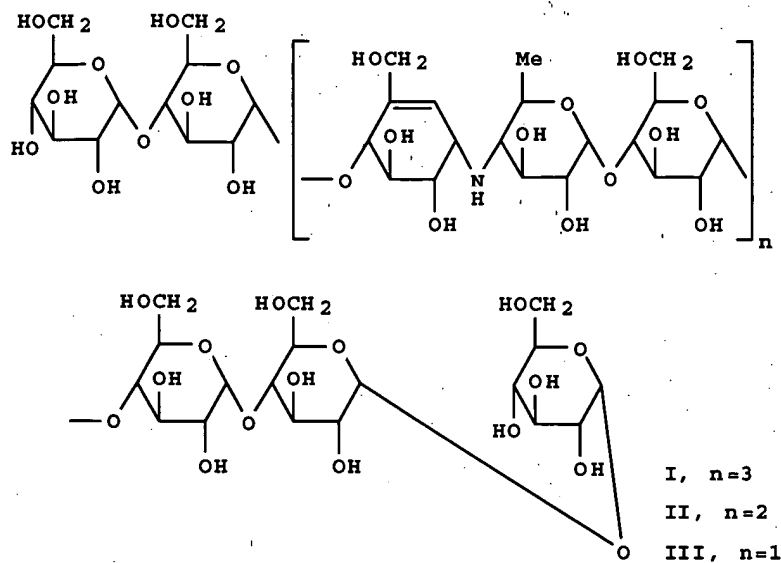
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-89812-A1.

RN-89859-72-3



Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-89812-A1.

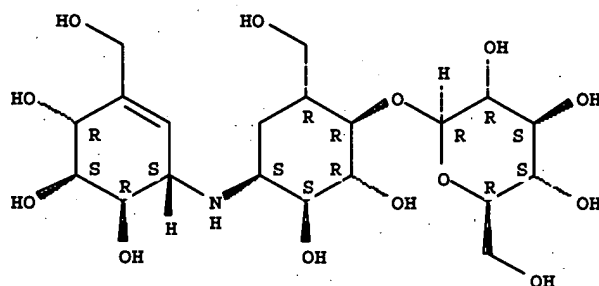
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RN-89498-90-8 = compound I  
RN-89498-89-5 = compound II  
RN-89498-88-4 = compound III

Yokose, Kazuteru; Ogawa, Mayumi; Ogawa, Kiyoshi. Journal of Antibiotics (1984), 37(2), 182-6.

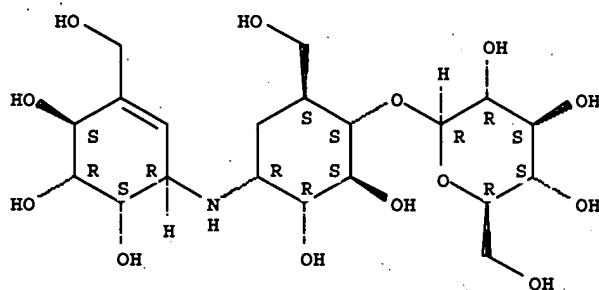
RN-87037-90-9



Ogawa, Seiichiro; Inoue, Makoto; Iwasawa, Yoshikazu; Toyokuni, Tatsushi; Suami, Tetsuo. Chemistry Letters (1983), (7), 1085-8 p1085.

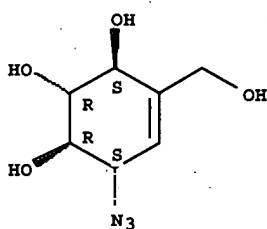


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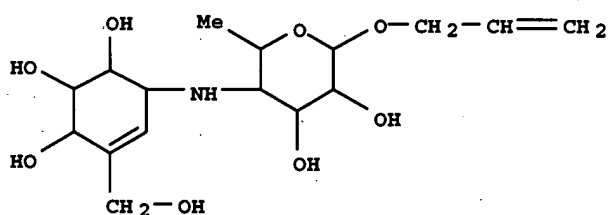
Ogawa, Seiichiro; Inoue, Makoto; Iwasawa, Yoshikazu; Toyokuni, Tatsushi; Suami, Tetsuo. Chemistry Letters (1983), (7), 1085-8 p1085.

RN-86900-52-9



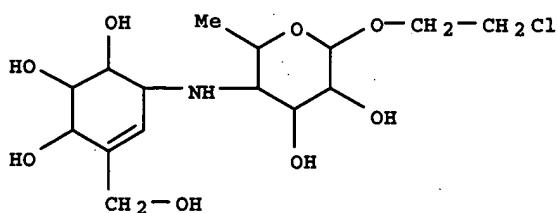
Toyokuni, Tatsushi; Ogawa, Seiichiro; Suami, Tetsuo. Bulletin of the Chemical Society of Japan (1983), 56(4), 1161-70 p1163.

RN-85440-55-7



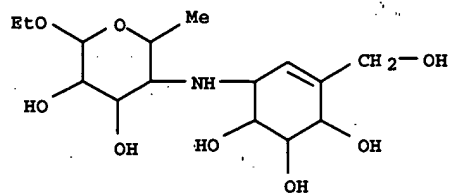
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85440-54-6



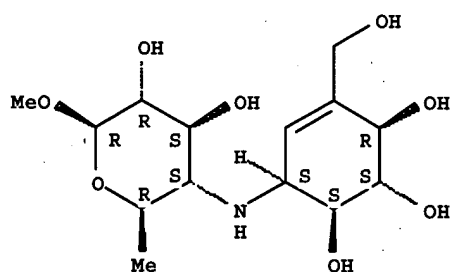
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85440-53-5



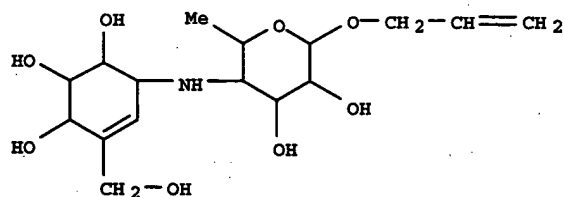
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85440-51-3



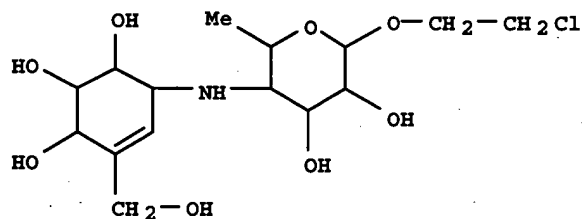
Junge, Bodo; Heiker, Fred R.; Kurz, Juergen; Mueller, Lutz; Schmidt, Delf D.;  
Wuensche, Christian. Carbohydrate Research (1984), 128(2), 235-68.

RN-85382-71-4



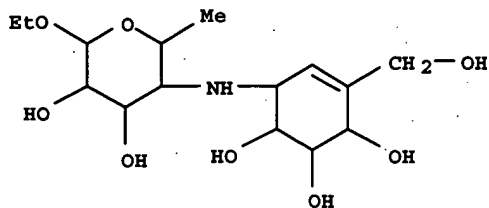
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85382-70-3



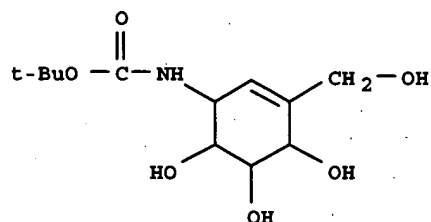
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85382-69-0



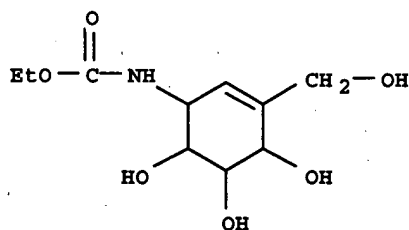
Heiker, Fred Robert; Mueller, Lutz; Puls, Walter; Bischoff, Hilmar. EP-64635-A1.

RN-85240-37-5



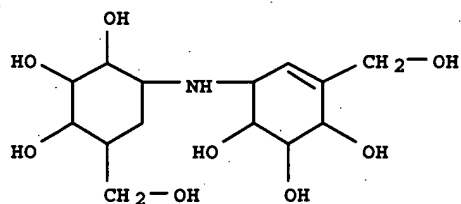
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-89812-A1.

RN-85240-25-1



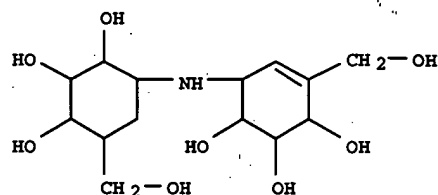
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-89812-A1.

RN-84622-05-9



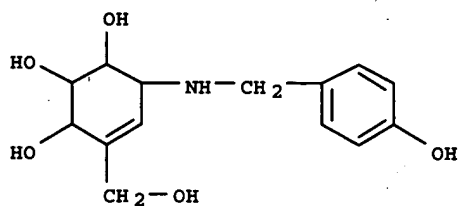
Ogawa, Seiichiro; Suetsugu, Masaru; Toyokuni, Tatsushi; Suami, Tetsuo. Nippon Kagaku Kaishi (1982), (10), 1721-6.

RN-84622-04-8



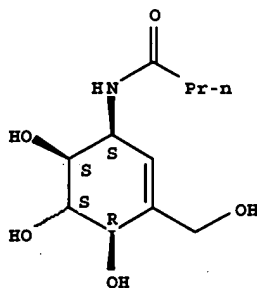
Ogawa, Seiichiro; Suetsugu, Masaru; Toyokuni, Tatsushi; Suami, Tetsuo. Nippon Kagaku Kaishi (1982), (10), 1721-6.

RN-84367-25-9



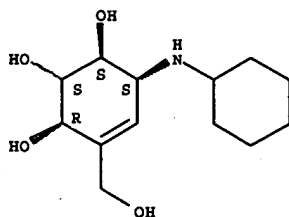
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michiyo; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84293-54-9



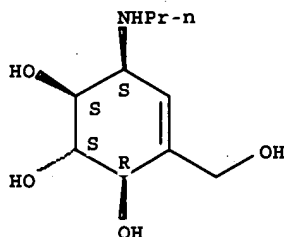
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michiyo; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84270-04-2



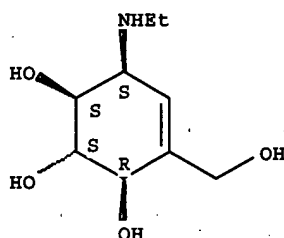
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michio; Matsui, Katsuhiko; Horii, Satoshi;  
Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84270-03-1



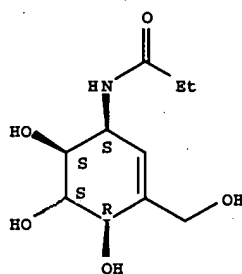
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michio; Matsui, Katsuhiko; Horii, Satoshi;  
Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84270-02-0



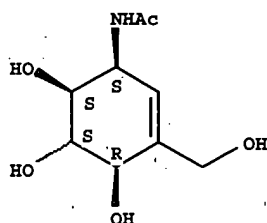
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michio; Matsui, Katsuhiko; Horii, Satoshi;  
Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84270-01-9



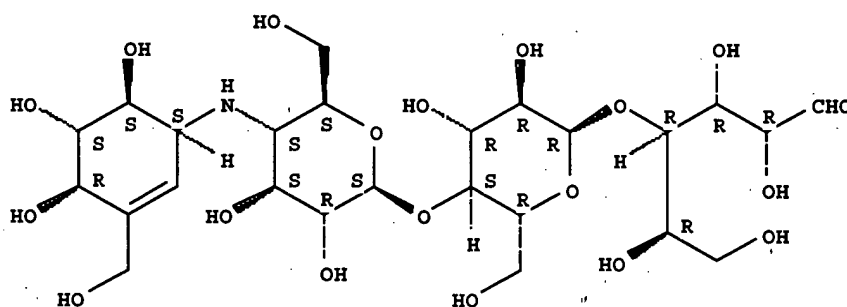
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michio; Matsui, Katsuhiko; Horii, Satoshi;  
Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-84270-00-8



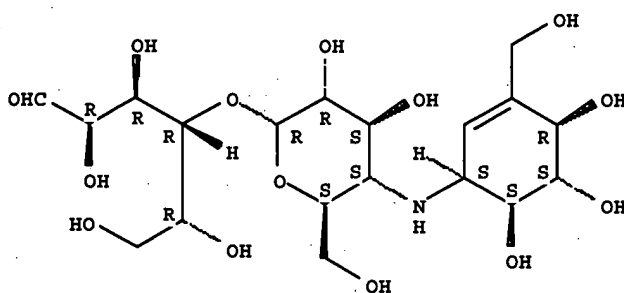
Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michiyo; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1982), 35(11), 1624-6.

RN-83764-12-9



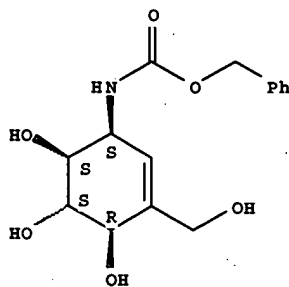
Kangouri, Kunio; Namiki, Shinjuro; Nagate, Takatoshi; Hara, Hiroshi; Sugita, Kazuhiko; Omura, Sadafumi. Journal of Antibiotics (1982), 35(9), 1160-6.

RN-83764-11-8



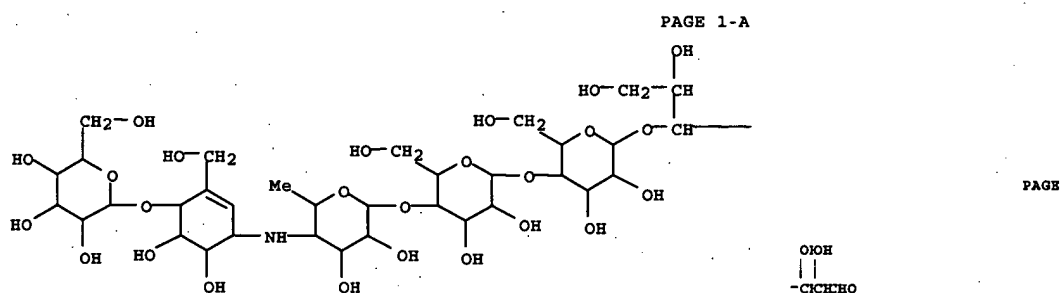
Kangouri, Kunio; Namiki, Shinjuro; Nagate, Takatoshi; Hara, Hiroshi; Sugita, Kazuhiko; Omura, Sadafumi. Journal of Antibiotics (1982), 35(9), 1160-6.

RN-83470-76-2



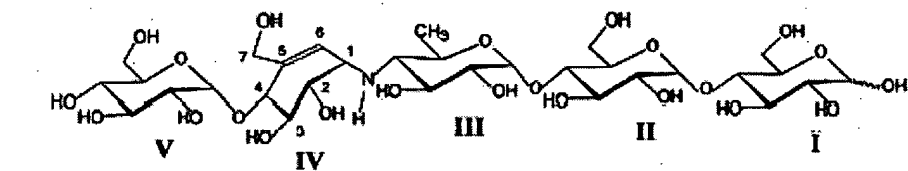
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-56194-A1.

RN-83116-11-4



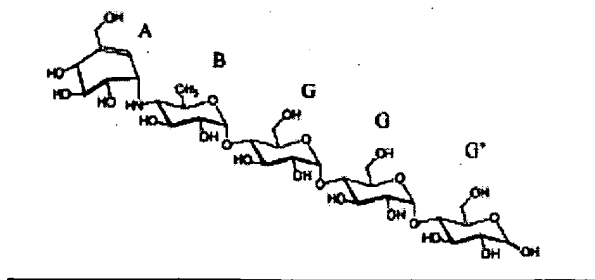
Fukuhara, Kenichi; Murai, Hidetsugu; Murao, Sawao. Agricultural and Biological Chemistry (1982) 46(7), 1941-5.

RN-83116-10-3



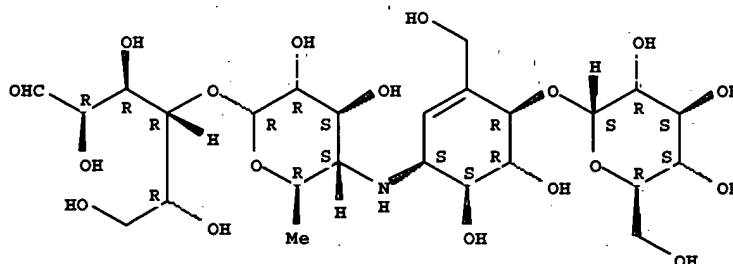
Yoon, Seung-Heon; Robyt, John F. Carbohydrate Research (2002), 337(6), 509-516.

RN-83116-09-0



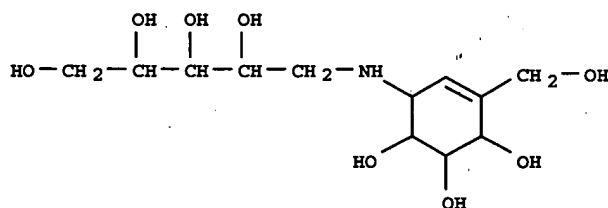
Nahoum, Virginie; Roux, Genevieve; Anton, Veronique; Rouge, Pierre; Puigserver, Antoine; Bischoff, Hilmar; Henrissat, Bernard; Payan, Françoise. Biochemical Journal (2000), 346(1), 201-208.

RN-83116-08-9



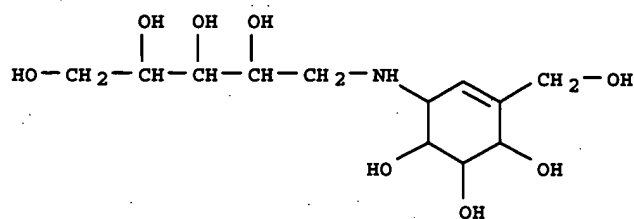
Kim, Myo-Jeong; Lee, Hee-Seob; Cho, Jin-Sook; Kim, Tae-Jip; Moon, Tae-Wha; Oh, Sang-Taek; Kim, Jung-Wan; Oh, Byung-Ha; Park, Kwan-Hwa. Biochemistry (2002), 41(29), 9099-9108.

RN-82950-48-9



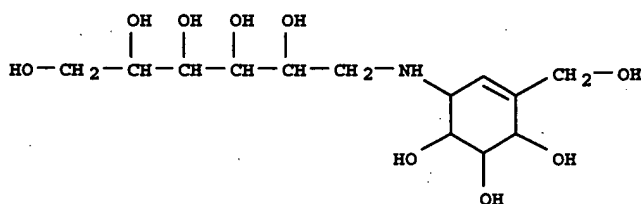
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p10.

RN-82950-47-8



Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p10.

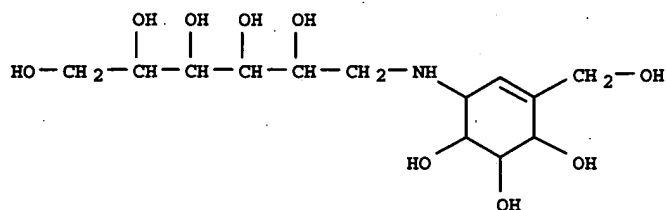
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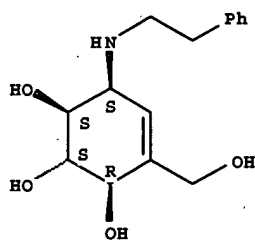
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p10.

RN-82950-45-6



Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p10.

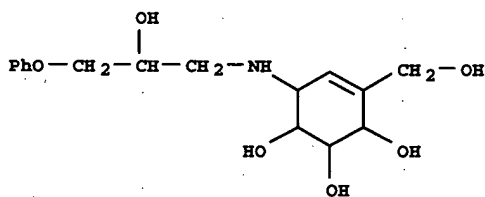
RN-82950-44-5



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Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p8.

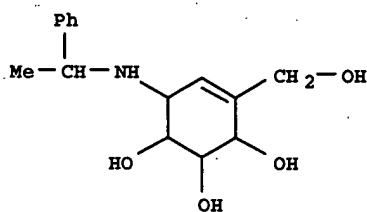
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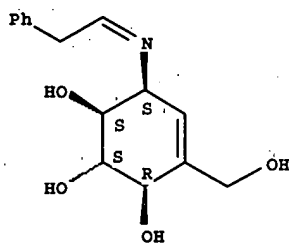
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p12.

RN-82920-57-8



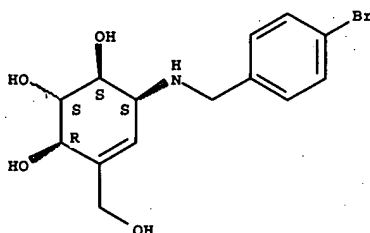
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p7.

RN-82920-56-7



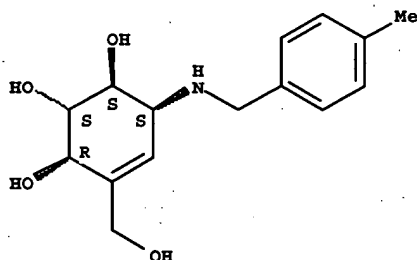
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p16.

RN-82920-55-6



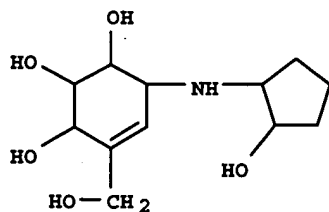
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p11.

RN-82920-54-5



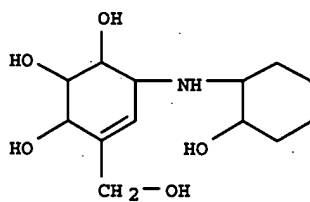
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p7.

RN-82920-53-4



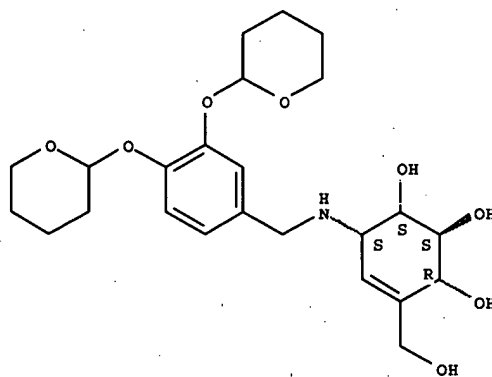
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p24.

RN-82920-52-3



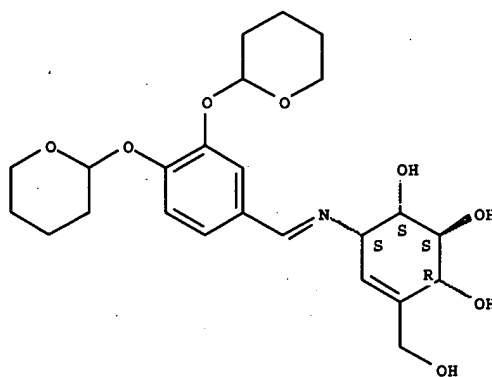
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p23.

RN-82920-51-2



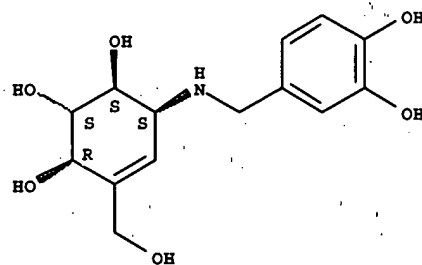
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p23.

RN-82920-50-1



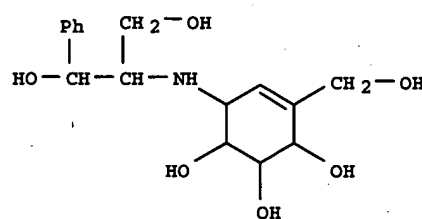
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p23.

RN-82920-49-8



Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p23.

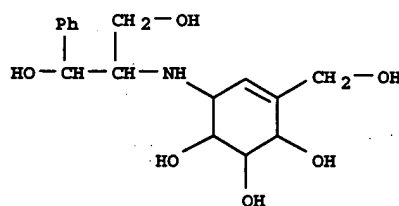
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HCl

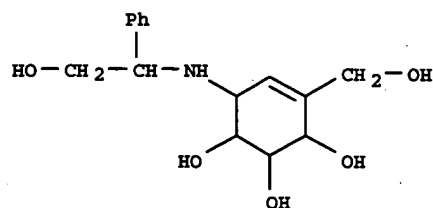
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p12

RN-82920-47-6



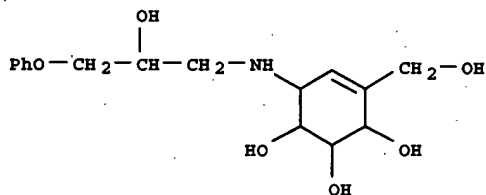
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p12

RN-82920-46-5



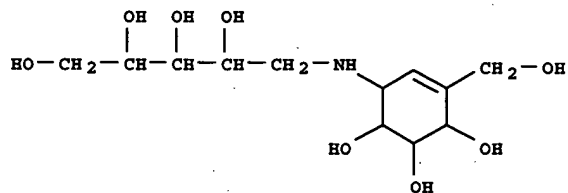
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RN-82920-45-4



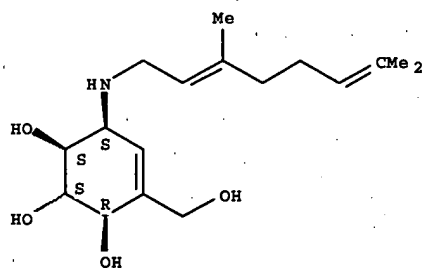
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p12

RN-82920-44-3



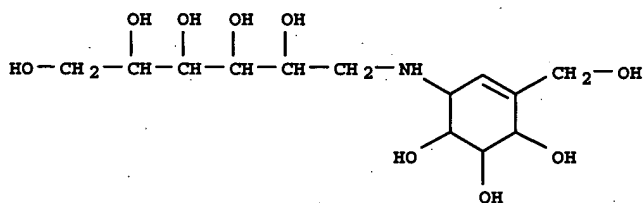
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RN-82920-43-2



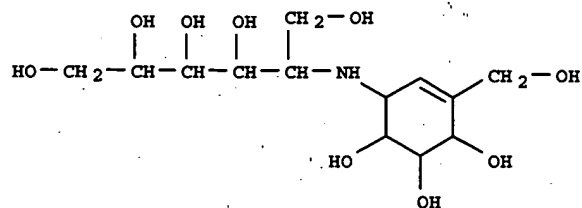
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p11

RN-82920-42-1



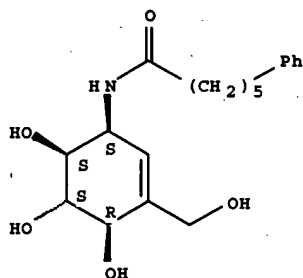
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RN-82920-41-0



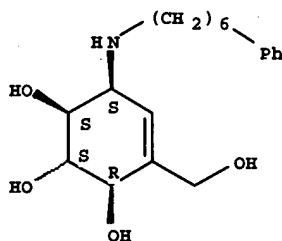
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RN-82920-40-9



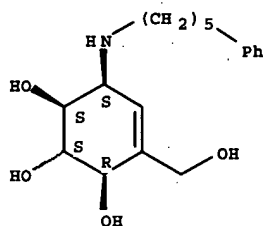
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RN-82920-39-6



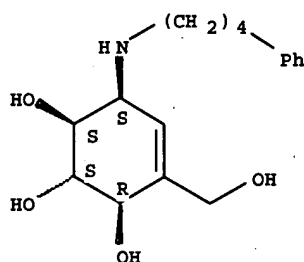
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p20

RN-82920-38-5



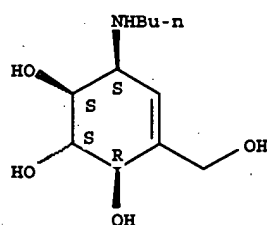
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p20

RN-82920-37-4



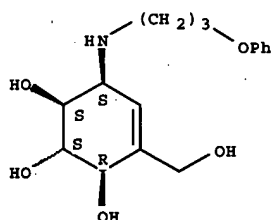
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p19

RN-82920-36-3



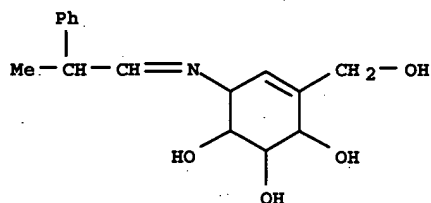
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p19

RN-82920-35-2



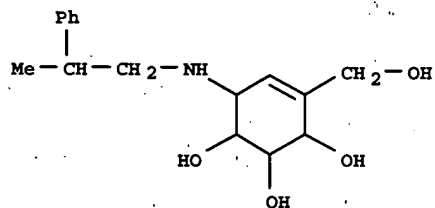
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RN-82920-34-1



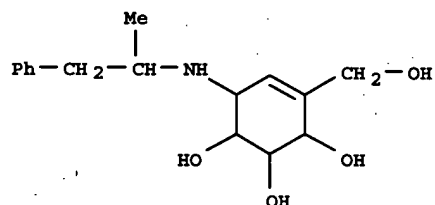
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RN-82920-33-0



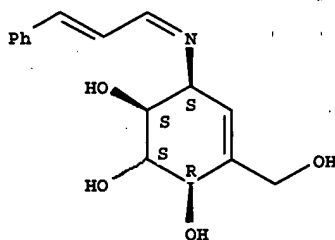
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RN-82920-32-9



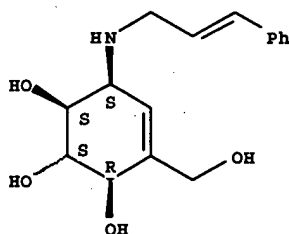
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p18

RN-82920-31-8



Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p18

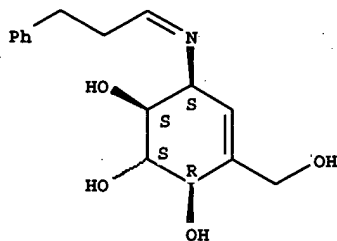
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Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p18

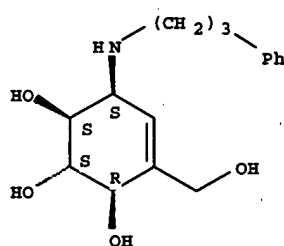


RN-82920-29-4



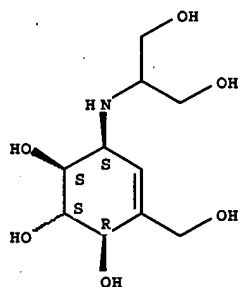
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RN-82920-28-3



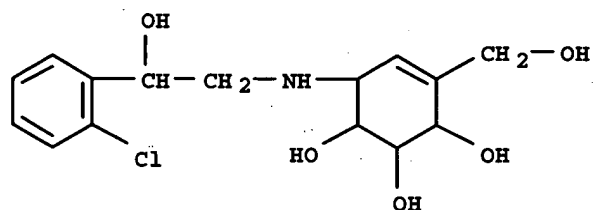
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RN-82920-27-2



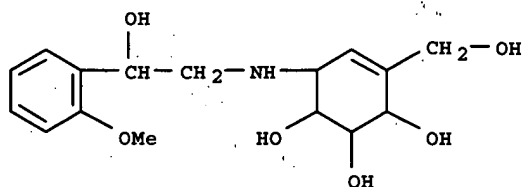
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RN-82920-26-1



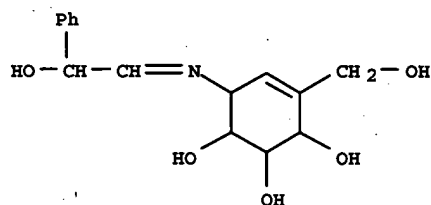
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p17

RN-82920-25-0



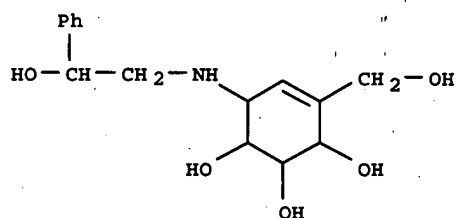
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RN-82920-24-9



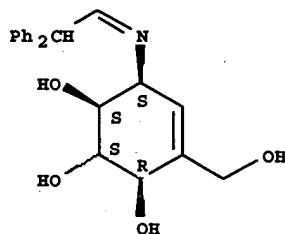
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RN-82920-23-8



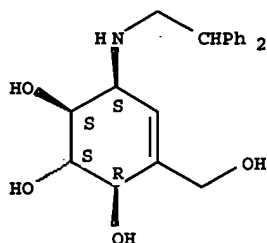
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p17

RN-82920-22-7



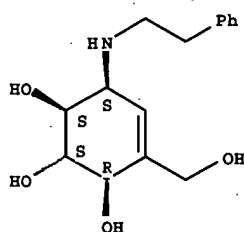
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RN-82920-21-6



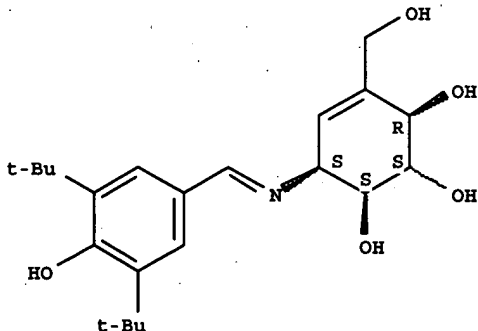
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RN-82920-20-5



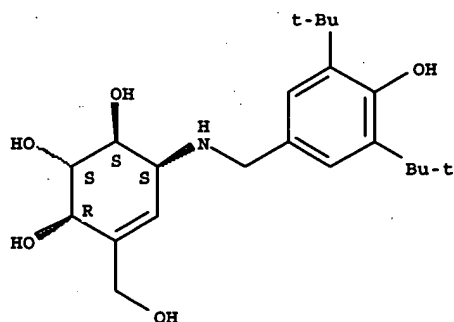
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RN-82920-19-2



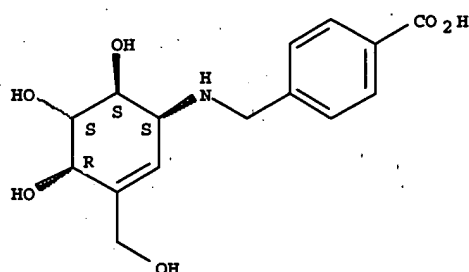
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RN-82920-18-1



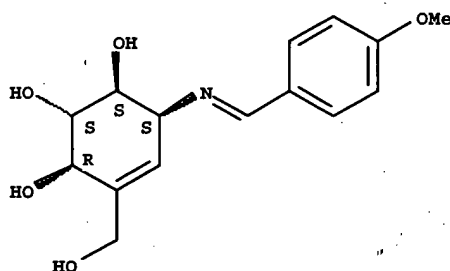
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RN-82920-17-0



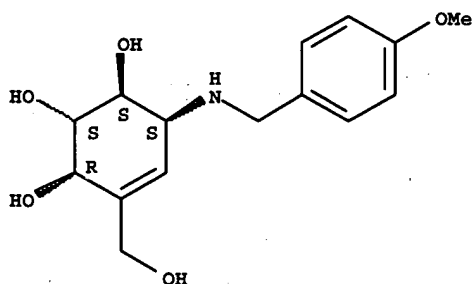
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RN-82920-16-9



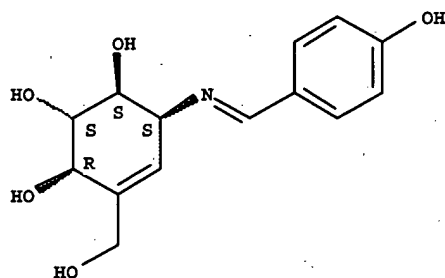
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RN-82920-15-8



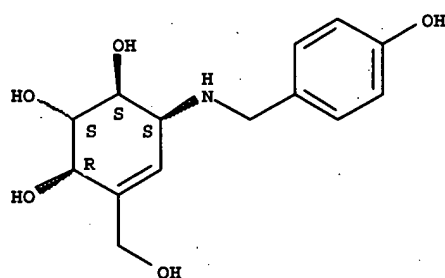
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RN-82920-14-7



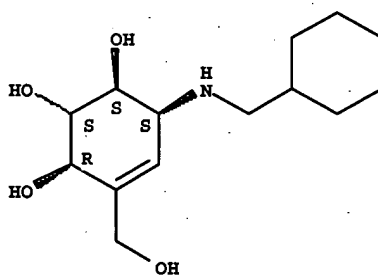
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RN-82920-13-6



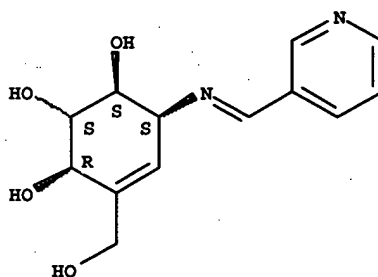
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RN-82920-12-5



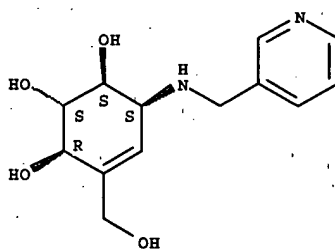
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RN-82920-11-2



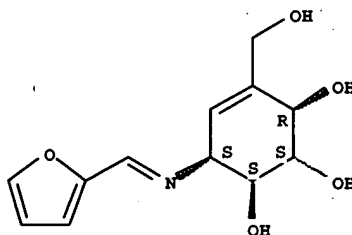
Horii, Satoshi; Kameda, Yukihiro; Fukase, Hiroshi. EP-49981-A1 p13

RN-82920-10-3



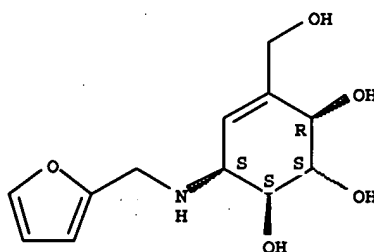
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RN-82920-09-0



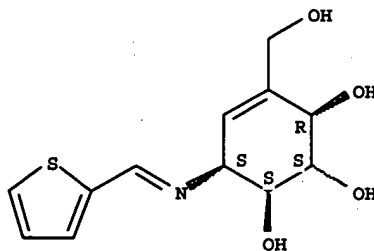
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RN-82920-08-9



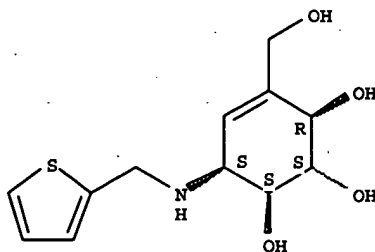
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RN-82920-07-8



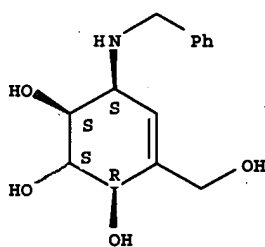
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RN-82920-06-7



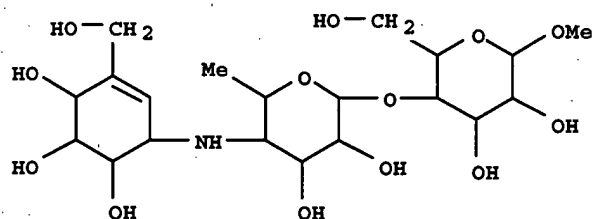
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RN-82920-05-6



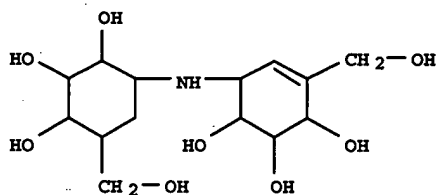
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RN-82796-38-1



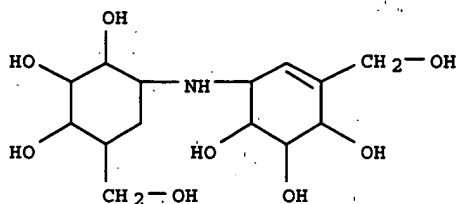
Meiji Seika Kaisha, Ltd., Japan JP-57024397-A2 p1

RN-82309-82-8



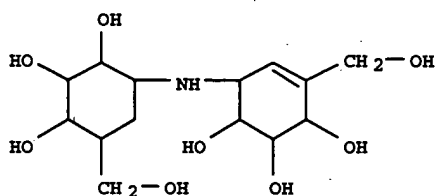
Ogawa, Seiichiro; Ogawa, Takao; Chida, Noritaka; Toyokuni, Tatsushi; Suami, Tetsuo.  
Chemistry Letters (1982), (5), 749-52 p751

RN-82309-79-3



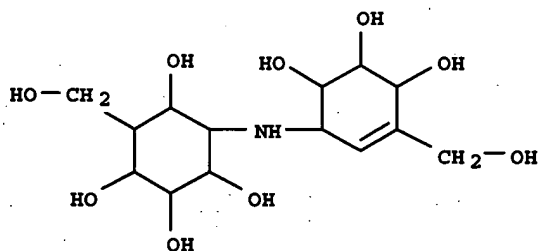
Ogawa, Seiichiro; Ogawa, Takao; Chida, Noritaka; Toyokuni, Tatsushi; Suami, Tetsuo.  
Chemistry Letters (1982), (5), 749-52 p751

RN-82309-75-9



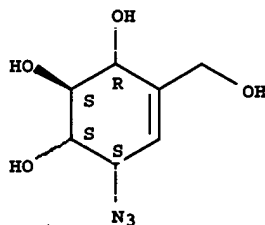
Ogawa, Seiichiro; Ogawa, Takao; Chida, Noritaka; Toyokuni, Tatsushi; Suami, Tetsuo.  
Chemistry Letters (1982), (5), 749-52 p751

RN-81739-22-2



Ogawa, Seiichiro; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Abe, Yasuo; Suami, Tetsuo.  
Chemistry Letters (1982), (3), 279-82 p279

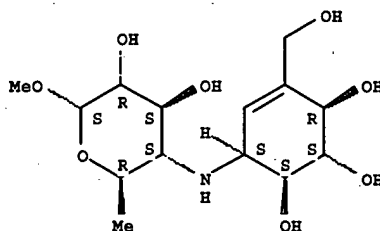
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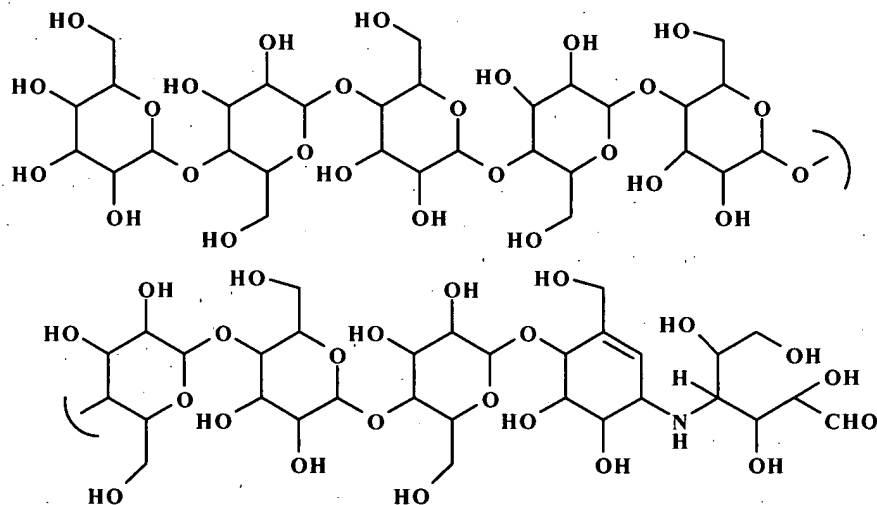
Ogawa, Seiichiro; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Abe, Yasuo; Suami, Tetsuo.  
Chemistry Letters (1982), (3), 279-82 p280

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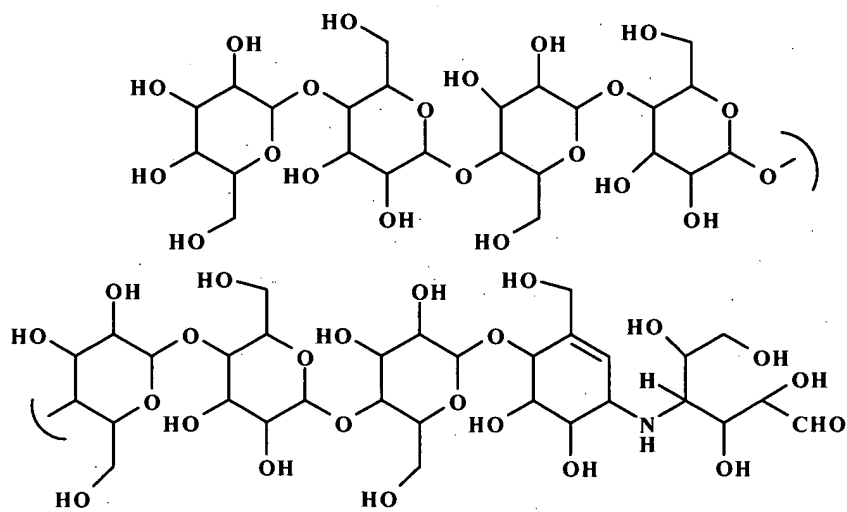
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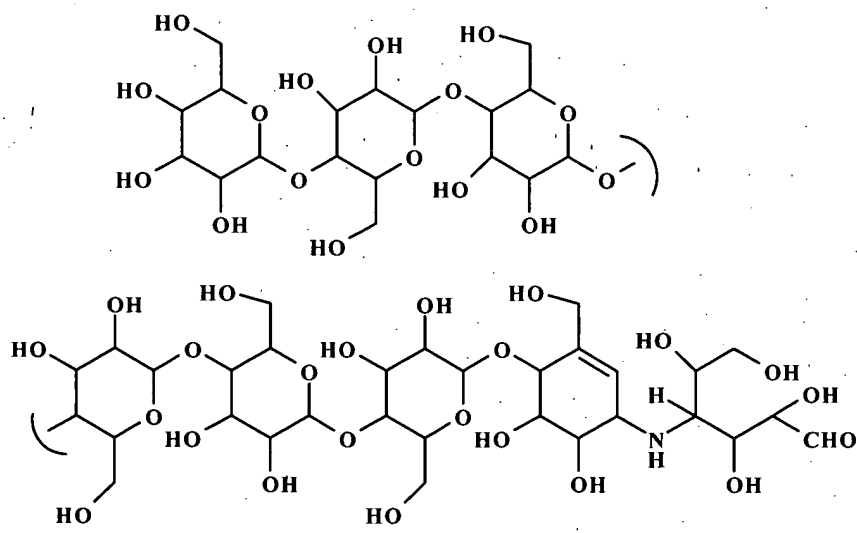
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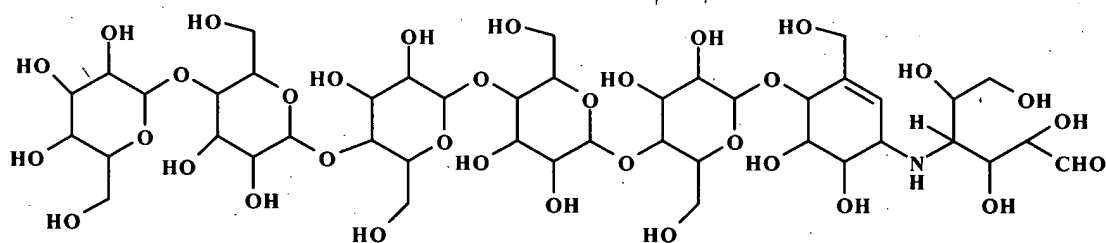
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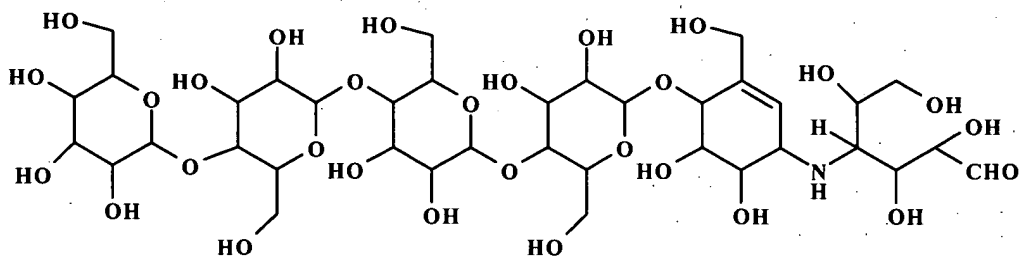
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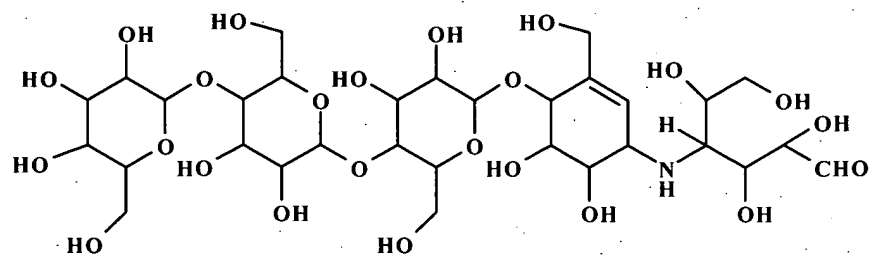
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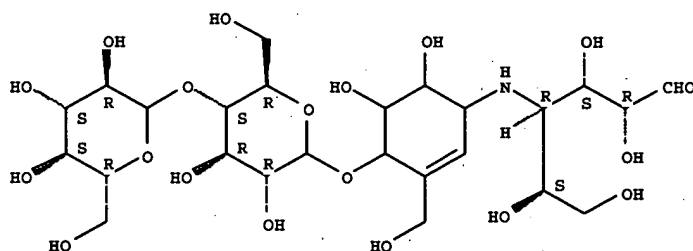
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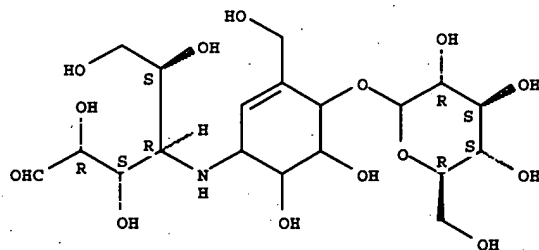
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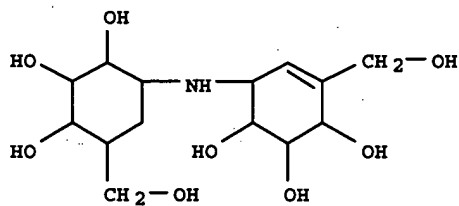
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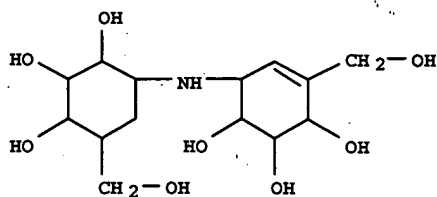
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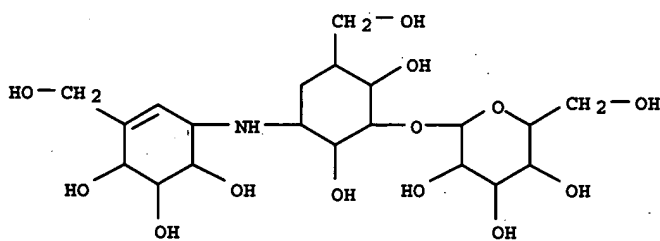
Ogawa, Seiichiro; Toyokuni, Tatsushi; Suami, Tetsuo. Chemistry Letters (1981), (7), 947-50.

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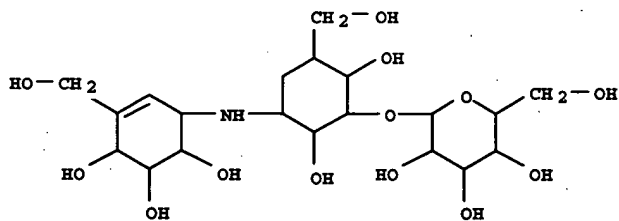
Ogawa, Seiichiro; Toyokuni, Tatsushi; Suami, Tetsuo. Chemistry Letters (1981), (7), 947-50.

RN-78216-48-5



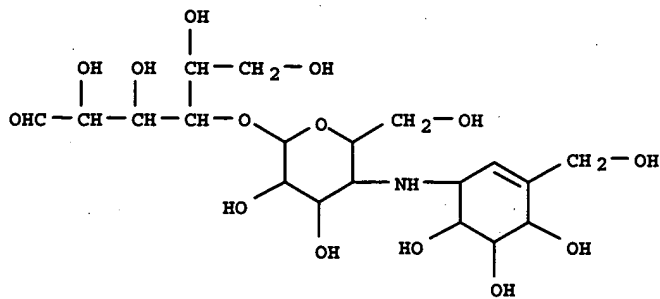
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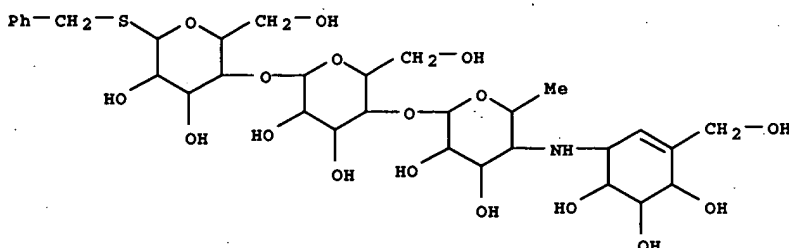
Asano, Naoki; Kameda, Yukihiro; Matsui, Katsuhiko. Journal of Antibiotics (1991), 44(12), 1406-16 compound 3a p1407

RN-77714-42-2



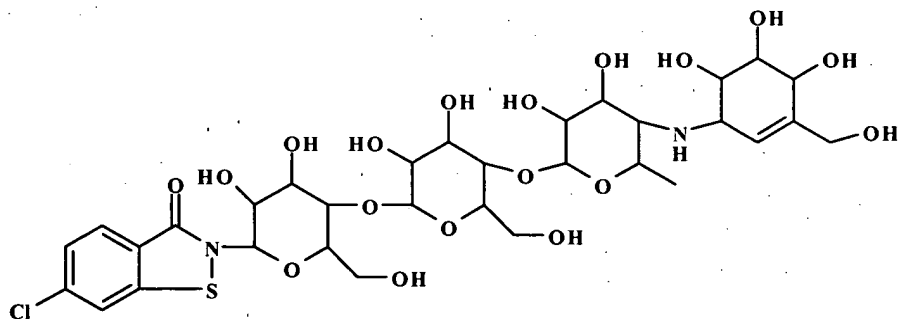
Mueller, L.; Junge, B.; Frommer, W.; Schmidt, D.; Truscheit, E. Inst. Biochem., Bayer A.-G., Wuppertal; Fed. Rep. Ger. Editor(s): Brodbeck, Urs. Enzyme Inhibitors, Proc. Meet. (1980), 109-22. Publisher: Verlag Chem p117

RN-77481-83-5



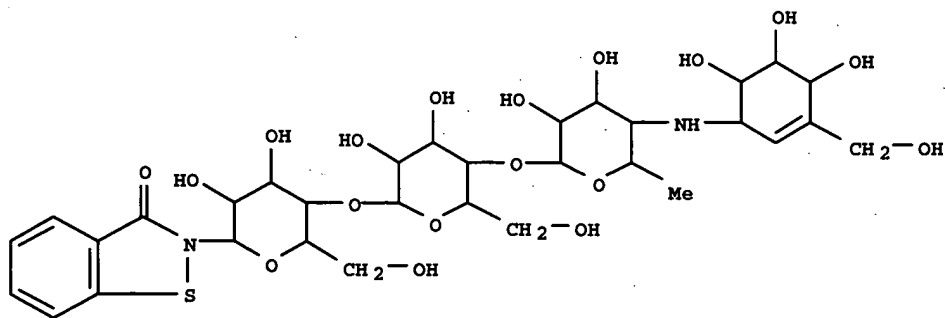
Junge, B.; Boeshagen, H.; Stoltefuss, J.; Mueller, L. Inst. Biochem., Bayer A.-G., Wuppertal, Fed. Rep. Ger. Editor(s): Brodbeck, Urs. Enzyme Inhibitors, Proc. Meet. (1980), 123-37. Publisher: Verlag Chem. Diagram 15 p 135

RN-77468-93-0



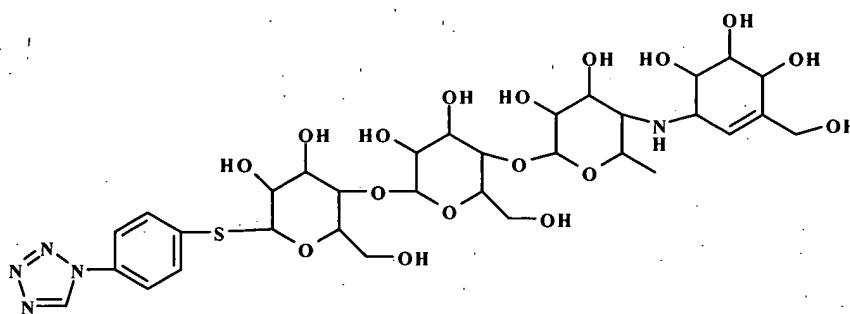
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RN-77453-33-9



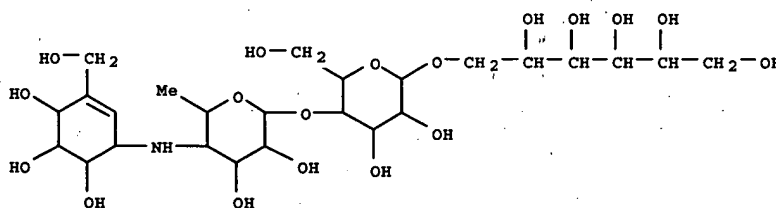
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RN-77453-32-8



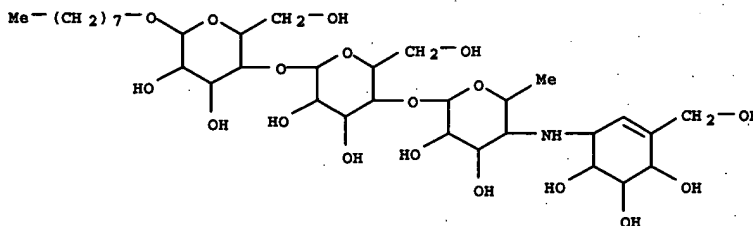
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RN-77453-31-7



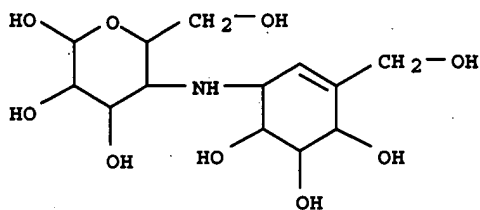
Junge, B.; Boeshagen, H.; Stoltefuss, J.; Mueller, L. Inst. Biochem., Bayer A.-G., Wuppertal, Fed. Rep. Ger. Editor(s): Brodbeck, Urs. Enzyme Inhibitors, Proc. Meet. (1980), 123-37. Publisher: Verlag Chem

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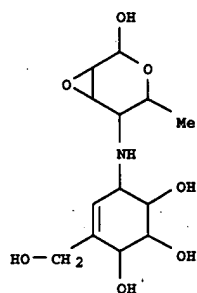
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RN-77369-20-1



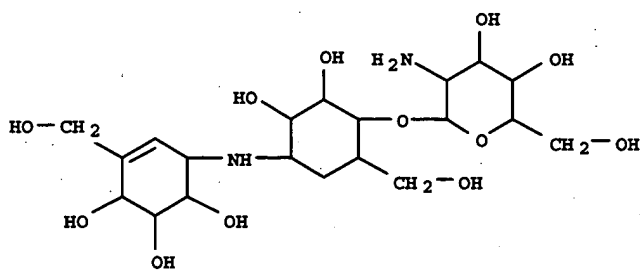
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RN-77181-46-5



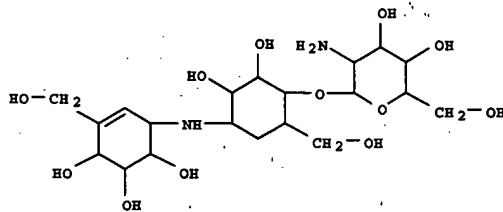
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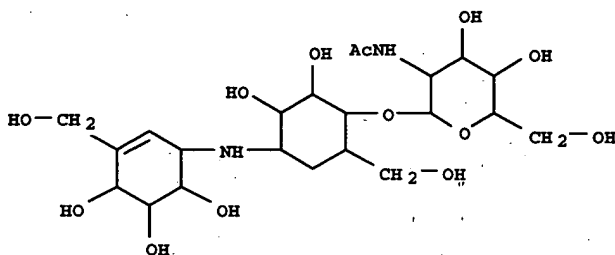
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· HCl

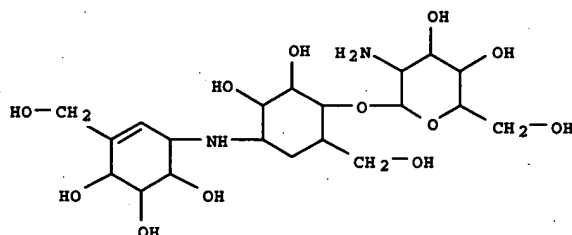
Hasegawa, Akira; Kobayashi, Toshiyuki; Hibino, Hideyuki; Kiso, Makoto. Dep. Agric. Chem., Gifu Univ., Gifu, Japan. Agricultural and Biological Chemistry (1980), 44(1), 143-7 p144

RN-73495-51-9



Hasegawa, Akira; Kobayashi, Toshiyuki; Hibino, Hideyuki; Kiso, Makoto. Dep. Agric. Chem., Gifu Univ., Gifu, Japan. Agricultural and Biological Chemistry (1980), 44(1), 143-7 p144

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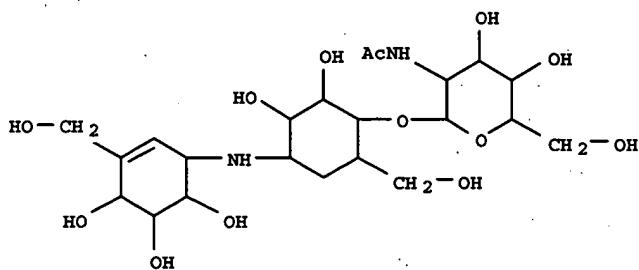


· HCl

Hasegawa, Akira; Kobayashi, Toshiyuki; Hibino, Hideyuki; Kiso, Makoto. Dep. Agric. Chem., Gifu Univ., Gifu, Japan. Agricultural and Biological Chemistry (1980), 44(1), 143-7 p144

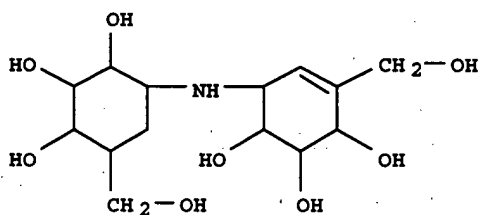


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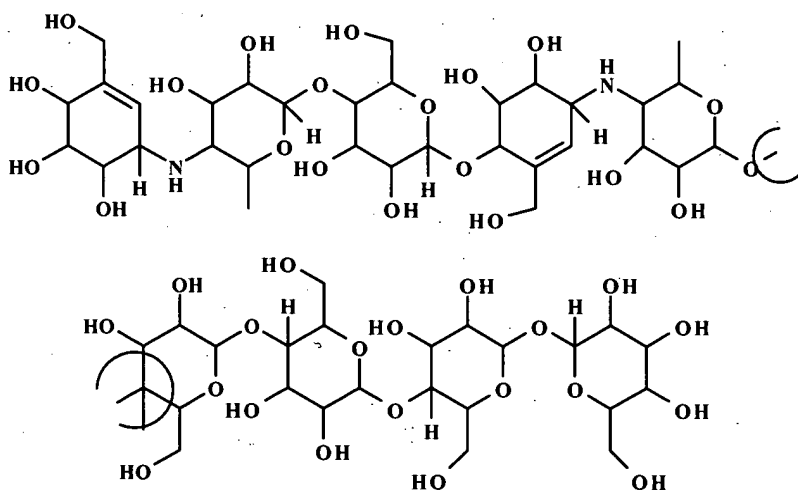
Hasegawa, Akira; Kobayashi, Toshiyuki; Hibino, Hideyuki; Kiso, Makoto. Dep. Agric. Chem., Gifu Univ., Gifu, Japan. Agricultural and Biological Chemistry (1980), 44(1), 143-7 p144

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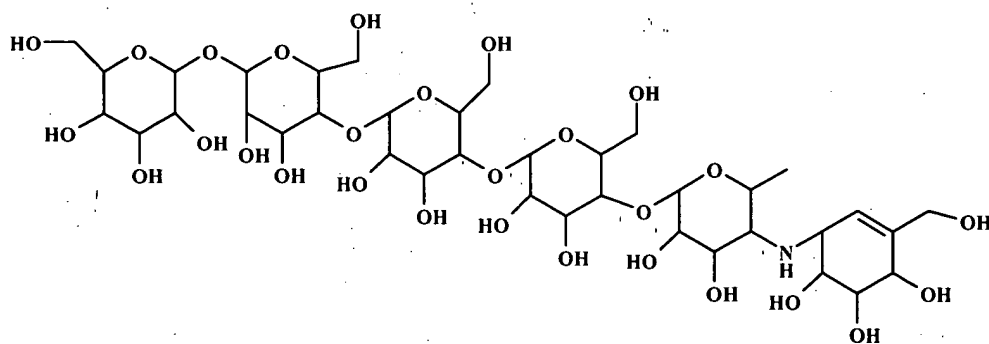
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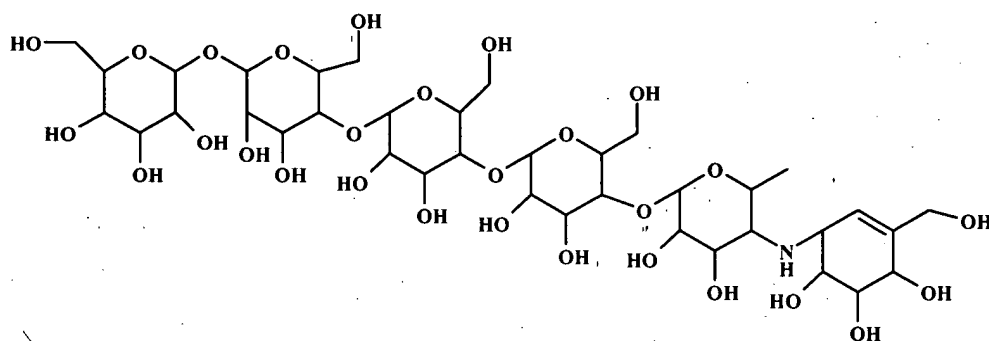
Y.Suhara et. al. US-4273765

RN-71869-92-6



Y.Suhara et. al. US-4273765

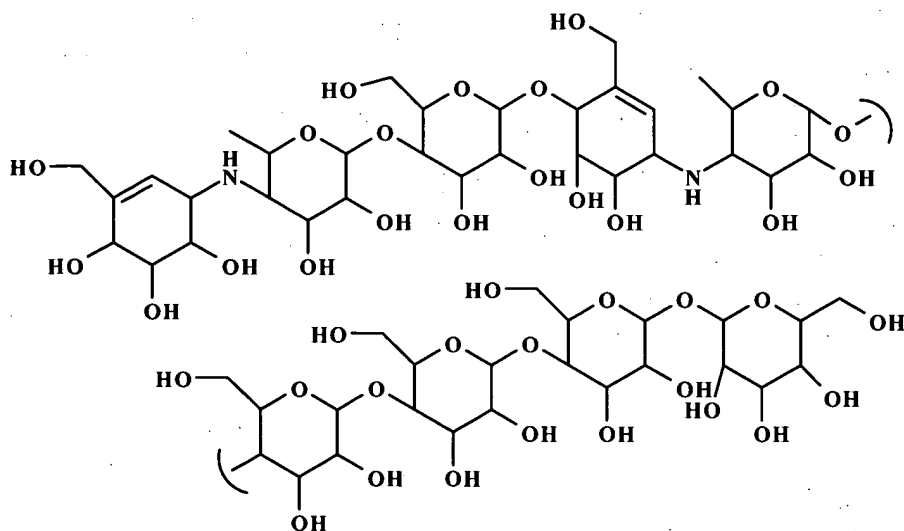
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HCl salt

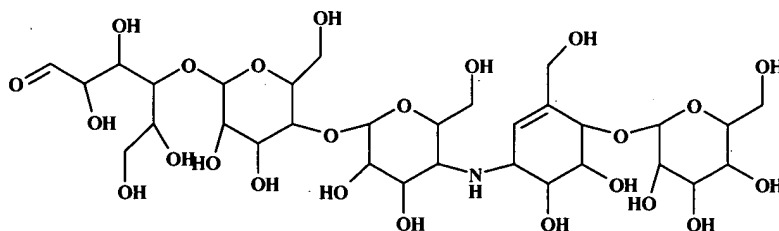
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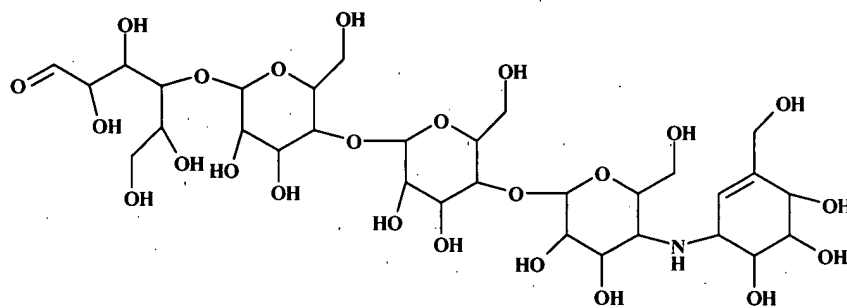
HCl salt

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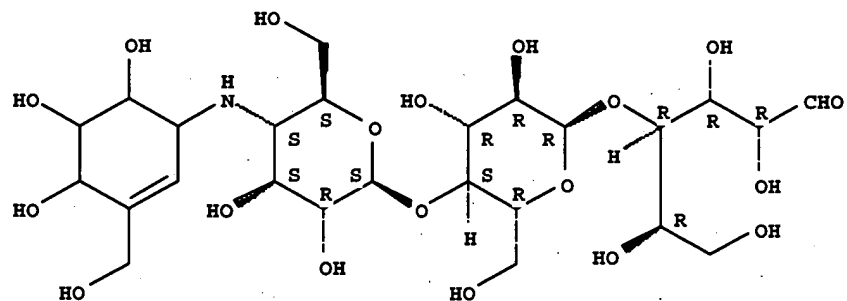
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RN-71605-24-8



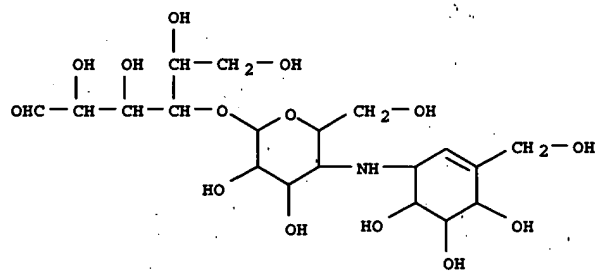
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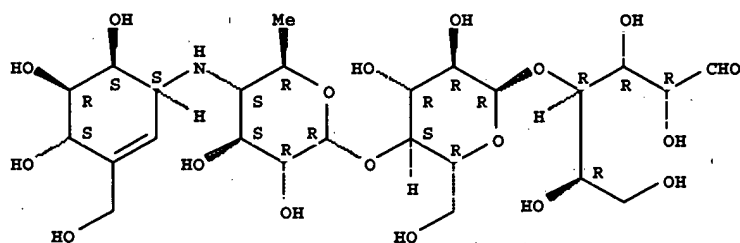
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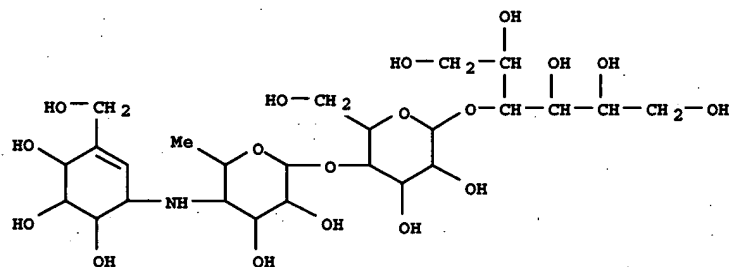
Otani, Masaru; Saito, Tetsu; Sato, Shuzo; Mizoguchi, Junzo; Muto, Naoki. Toyo Jozo Co., Ltd., Japan DE-2855409

RN-69351-49-1



E. Rauenbusch et. al. US-4174439

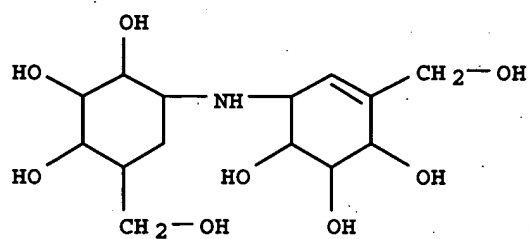
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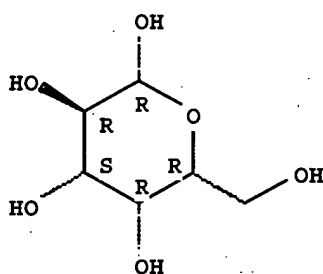
B. Junge et. al. DE-2658562 p65

RN-68422-39-9

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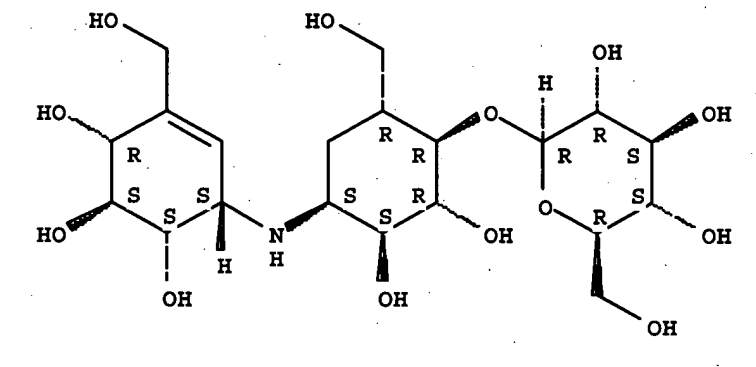
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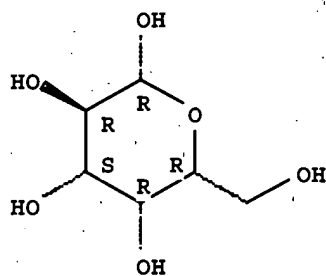
Kameda, Yukihiro; Asano, Naoki; Hashimoto, Tadashi. Journal of Antibiotics (1978), 31(9), 936-8. p 936

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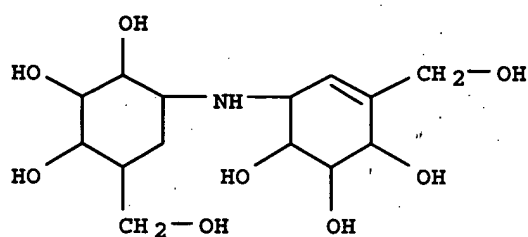
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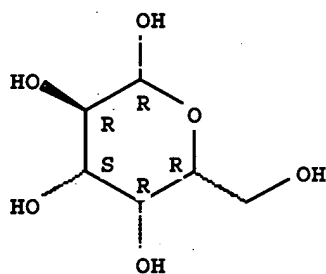
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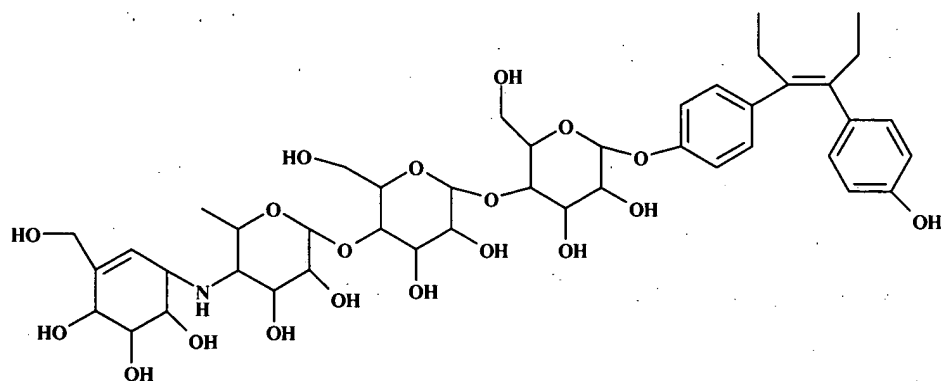


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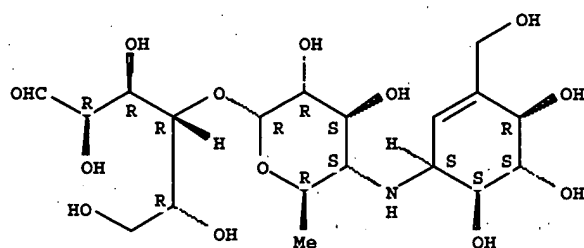
Kameda, Yukihiro; Asano, Naoki; Hashimoto, Tadashi. Journal of Antibiotics (1978), 31(9), 936-8. p937

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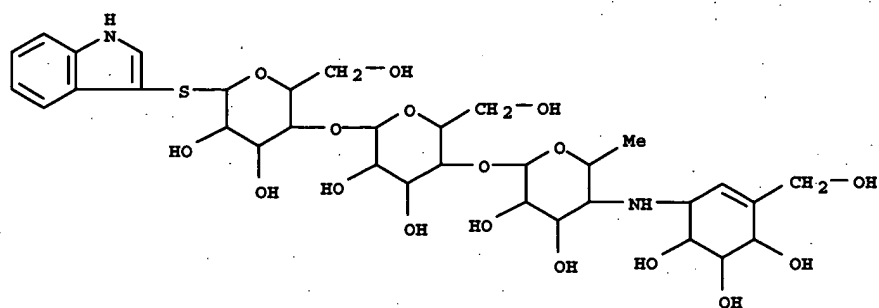
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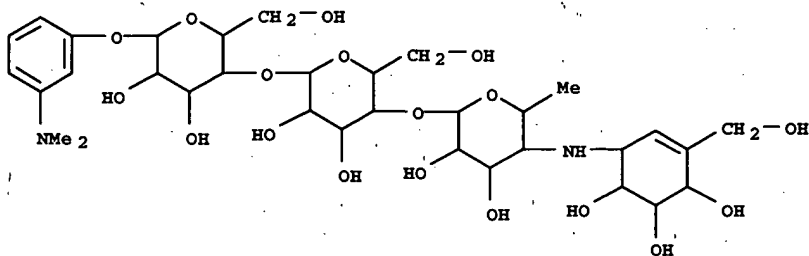
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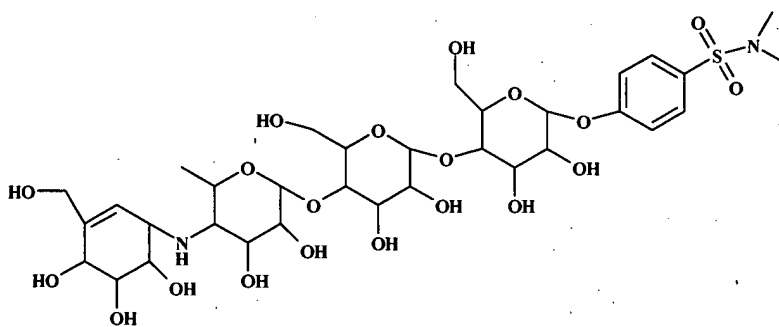
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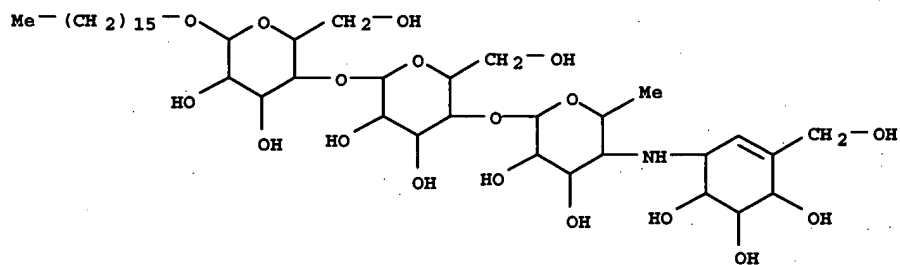
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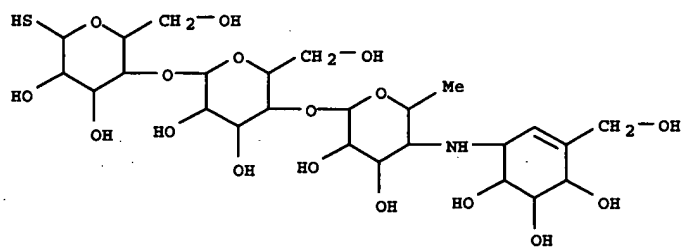
B. Junge et. al. DE-2658562 p69

RN-68107-64-2



B. Junge et. al. DE-2658562 p62

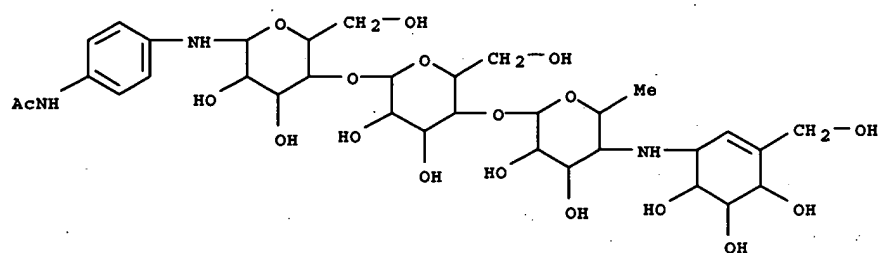
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B. Junge et. al. DE-2658562 p31

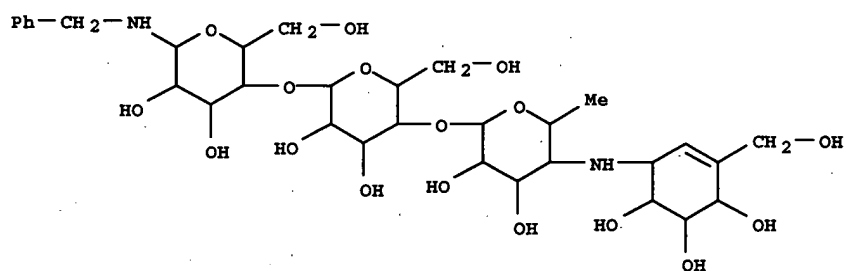


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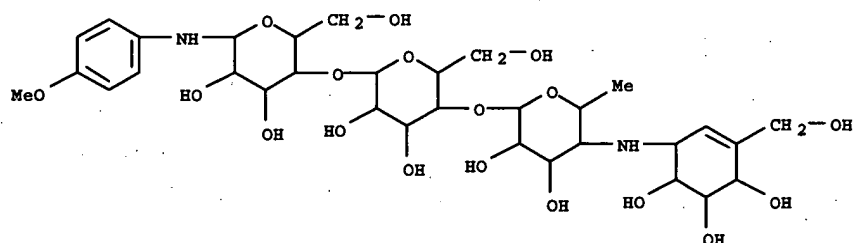
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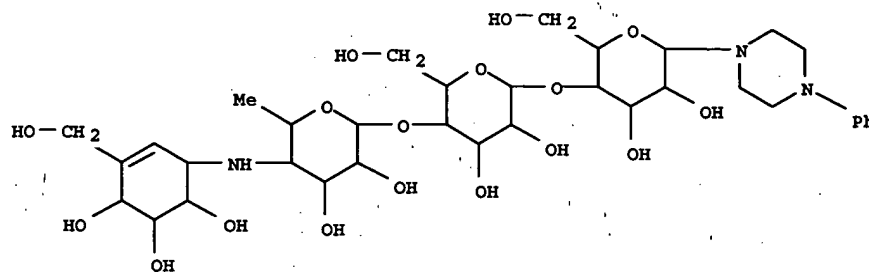
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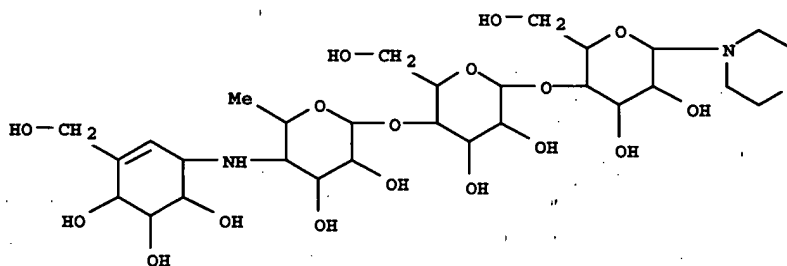
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RN-68107-54-0



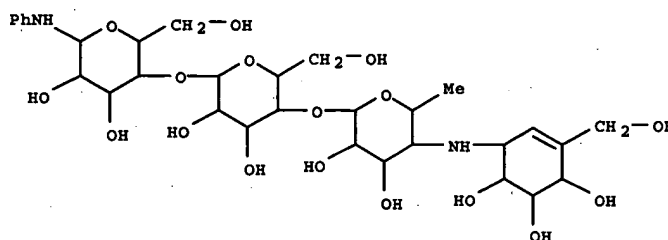
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RN-68107-52-8



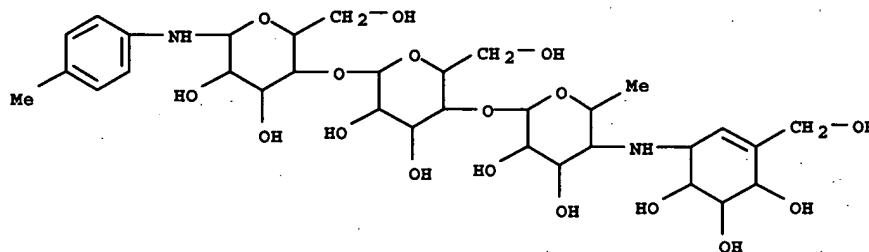
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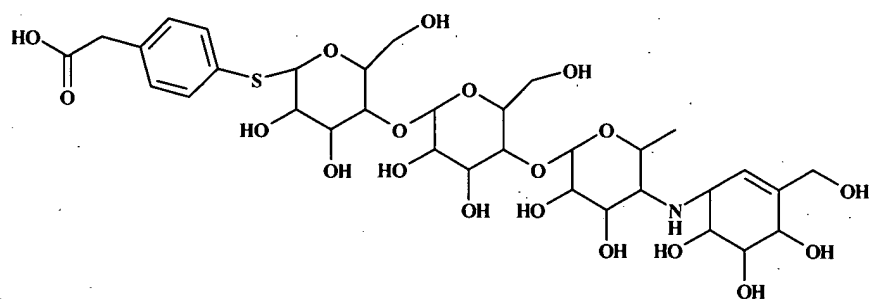
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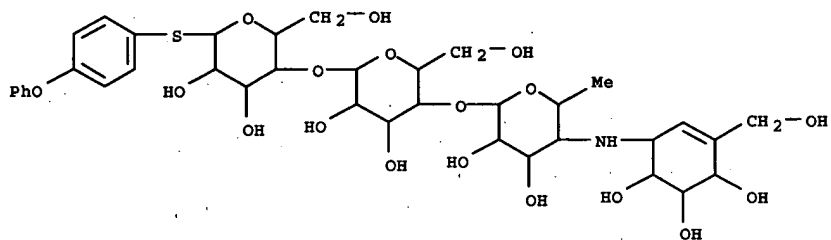
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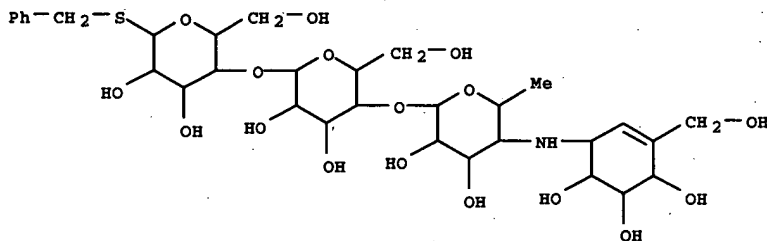
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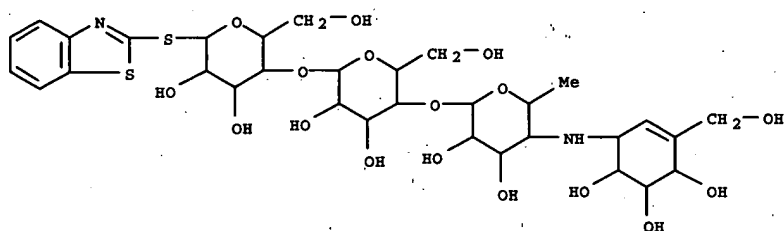
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RN-68107-42-6



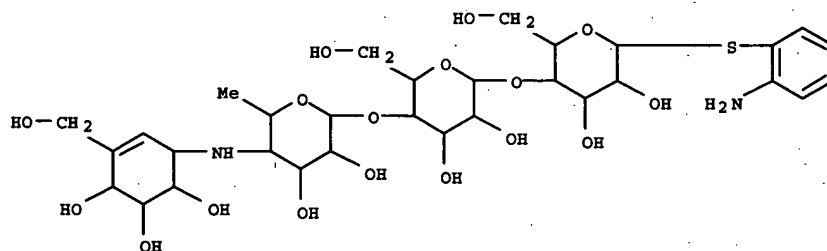
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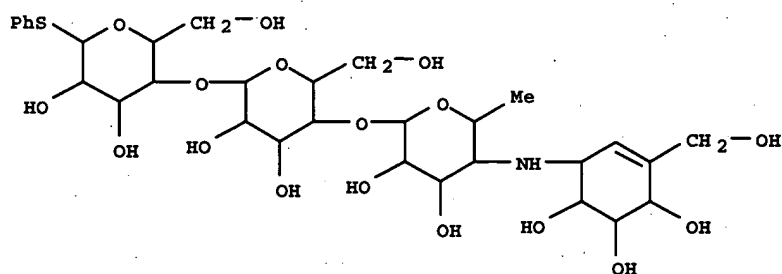
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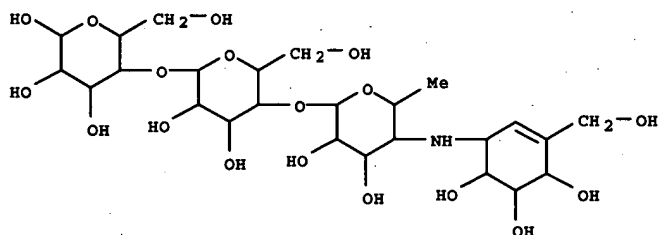
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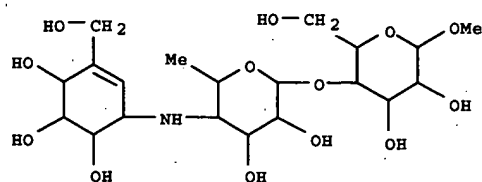
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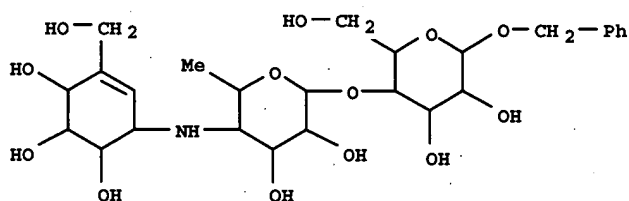
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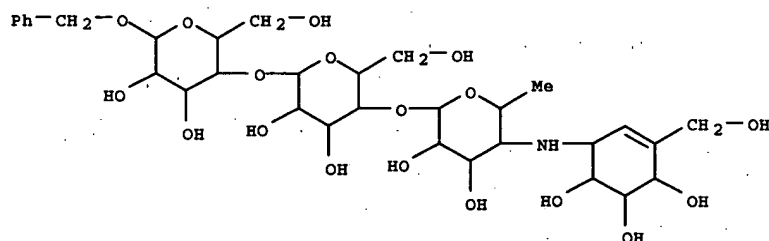
B. Junge et. al. DE-2658562 p63

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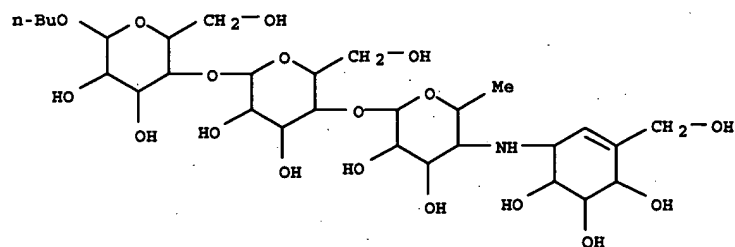
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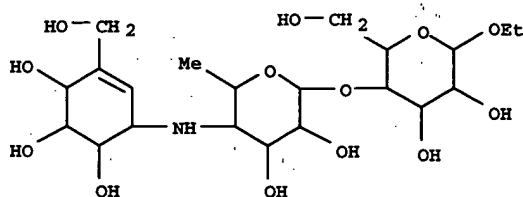
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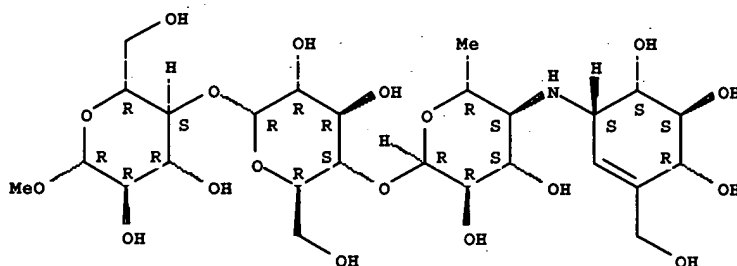
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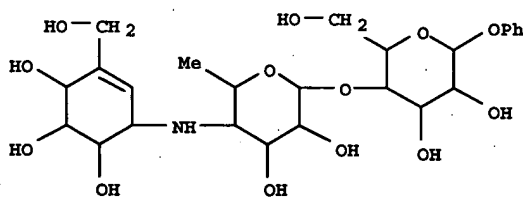
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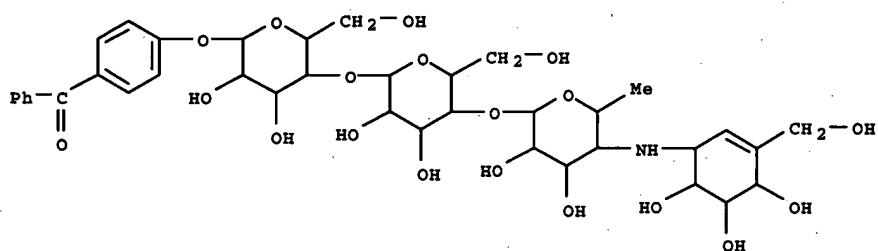
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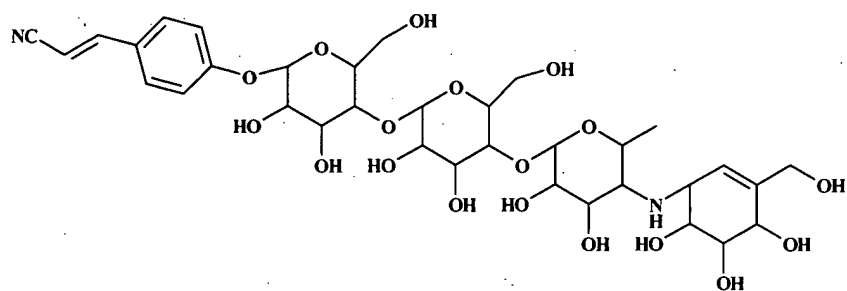
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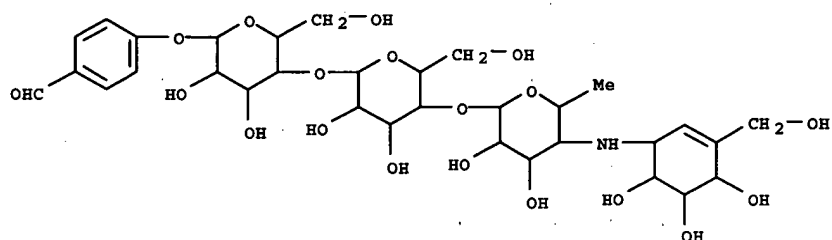
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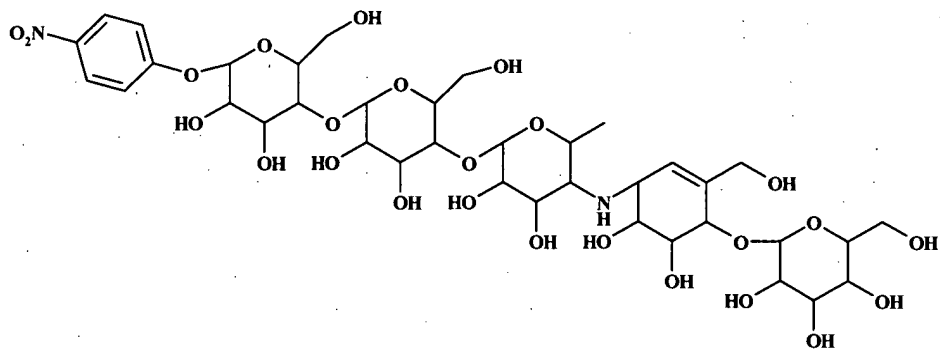
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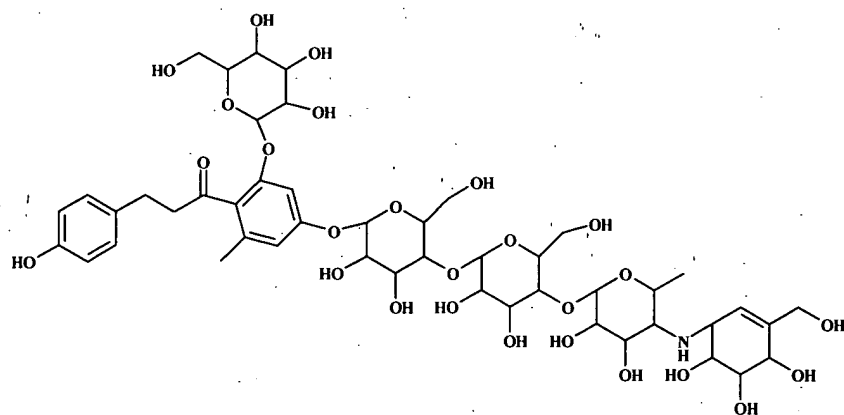
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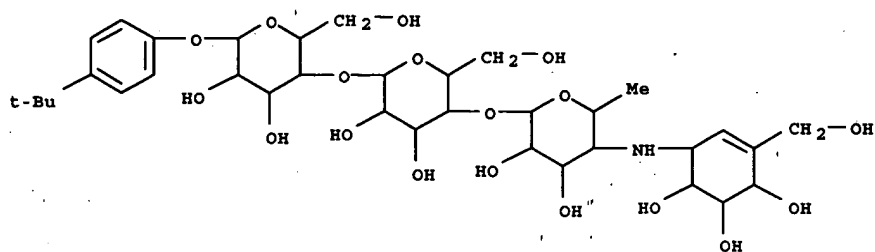
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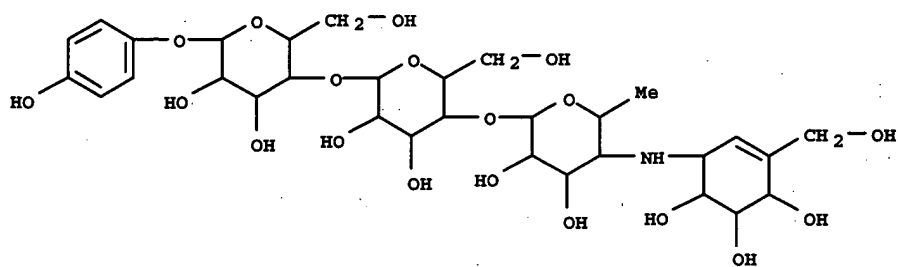
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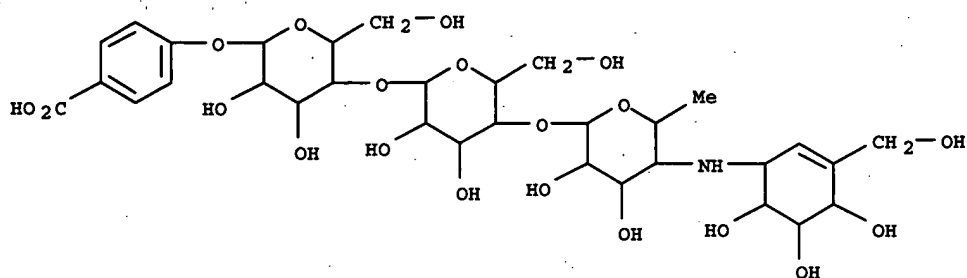
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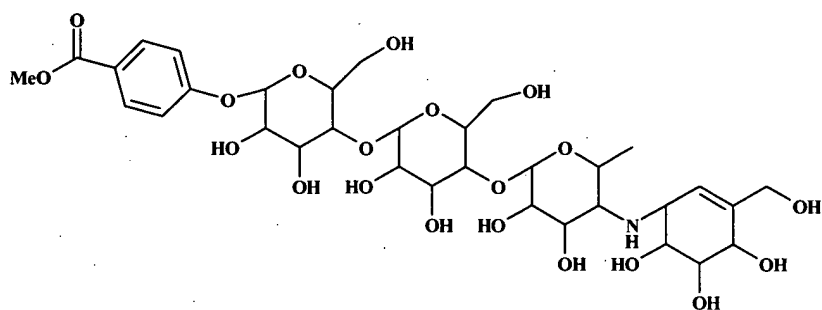


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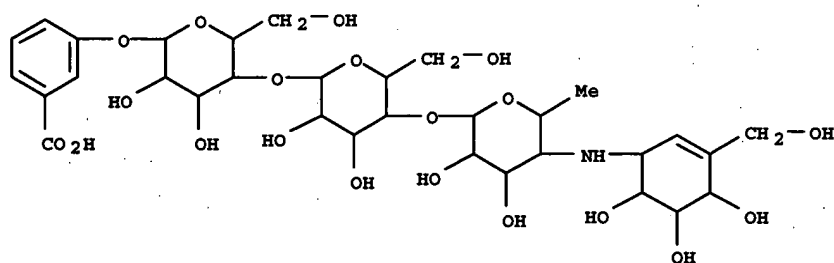
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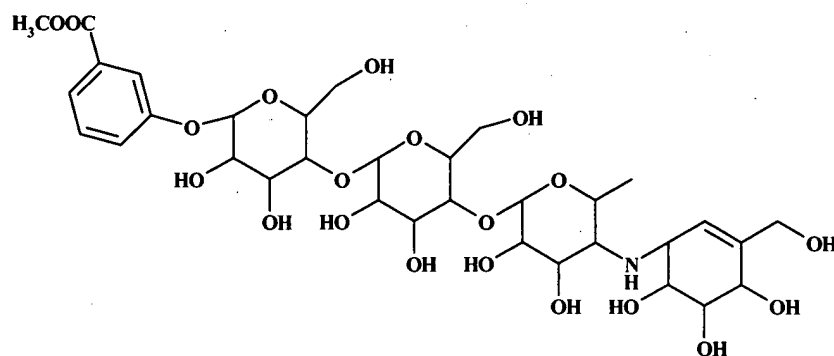
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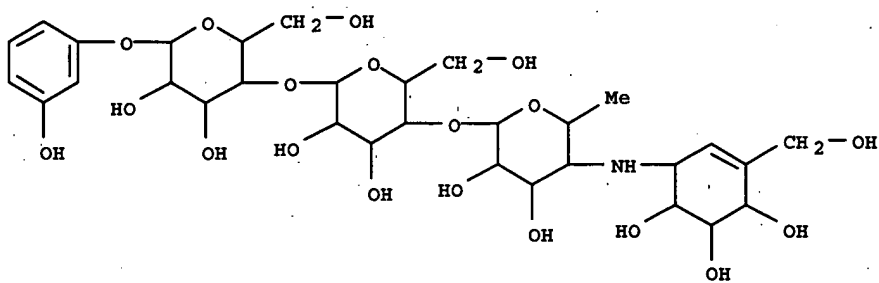
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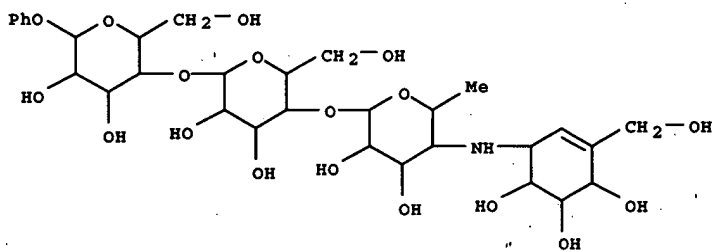
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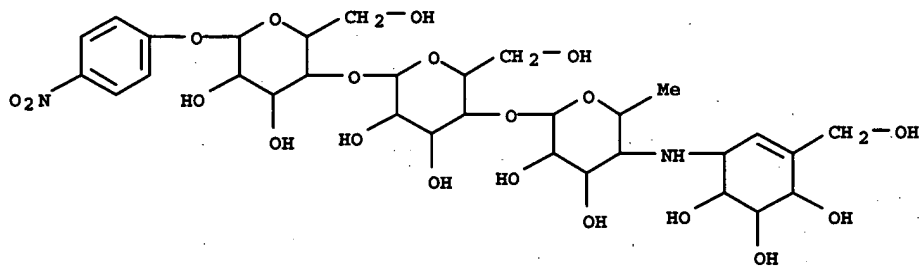
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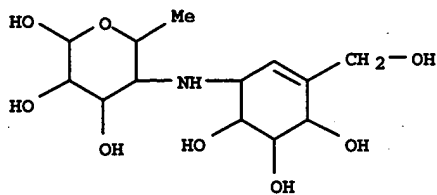
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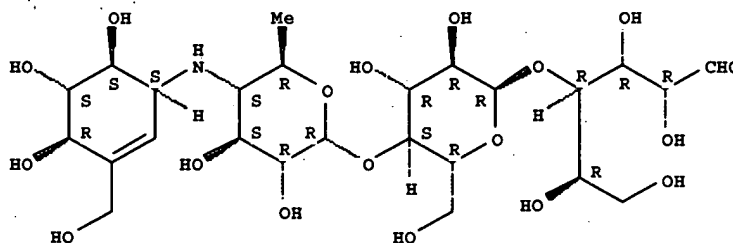


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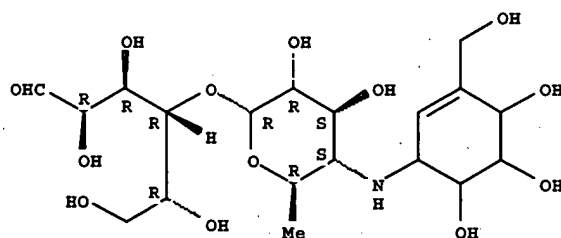


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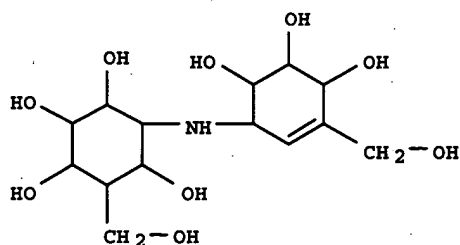
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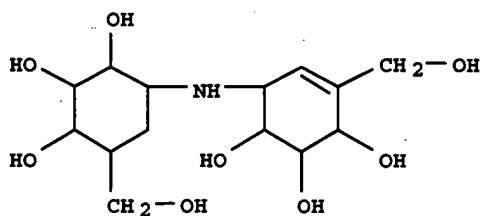
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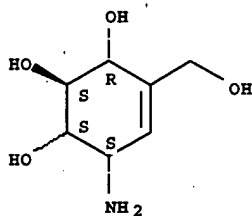
Asano N; Takeuchi M; Kameda Y; Matsui K; Kono Y JOURNAL OF ANTIBIOTICS  
(1990 Jun), 43(6), 722-6 p723

RN-38665-10-0



Asano N; Takeuchi M; Kameda Y; Matsui K; Kono Y JOURNAL OF ANTIBIOTICS  
(1990 Jun), 43(6), 722-6 p723

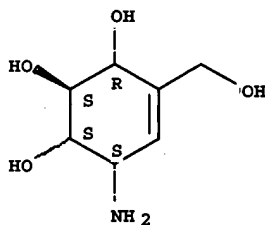
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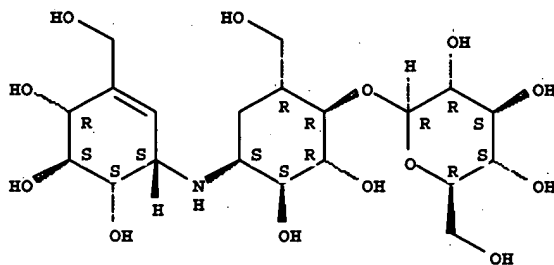
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Communications (1972), (12), 746-7 p746

RN-38231-86-6



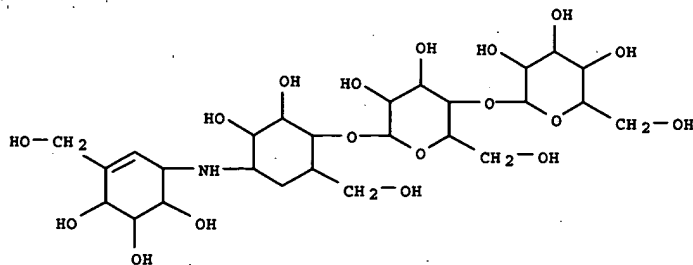
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(Washington, DC, United States) (2003), 103(5), 1955-1977

RN-37248-47-8



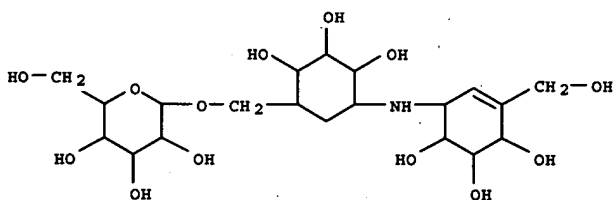
Horii, Satoshi; Kameda, Yukihiro. Journal of the Chemical Society, Chemical  
Communications (1972), (12), 747-8.

RN-12650-71-4



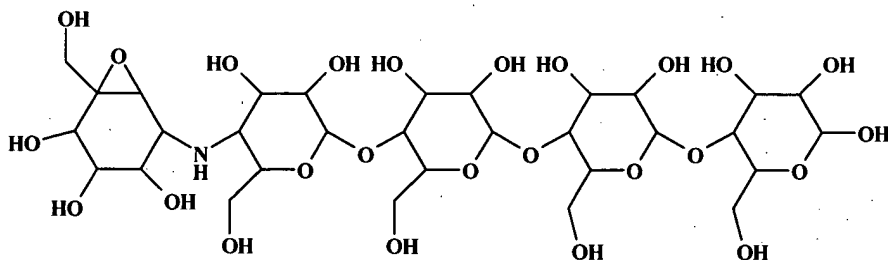
Horii, Satoshi; Kameda, Yukihiro; Kawahara, Kunio. Journal of Antibiotics (1972), 25(1), 48-53 p51

RN-12650-67-8



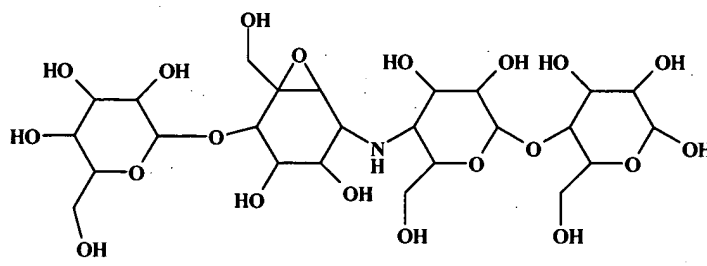
Horii, Satoshi; Kameda, Yukihiro; Kawahara, Kunio. Journal of Antibiotics (1972), 25(1), 48-53 p51

RN-180962-56-5



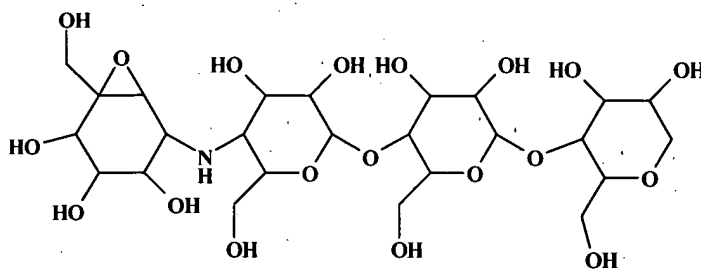
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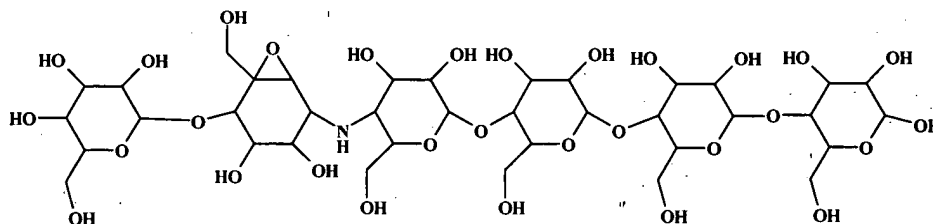
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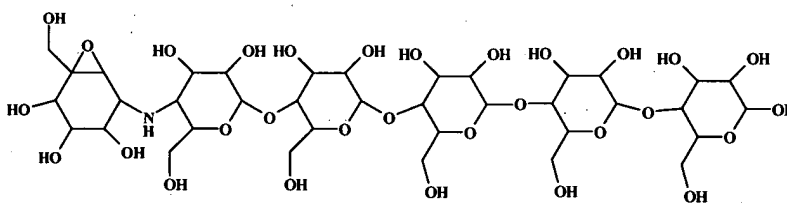
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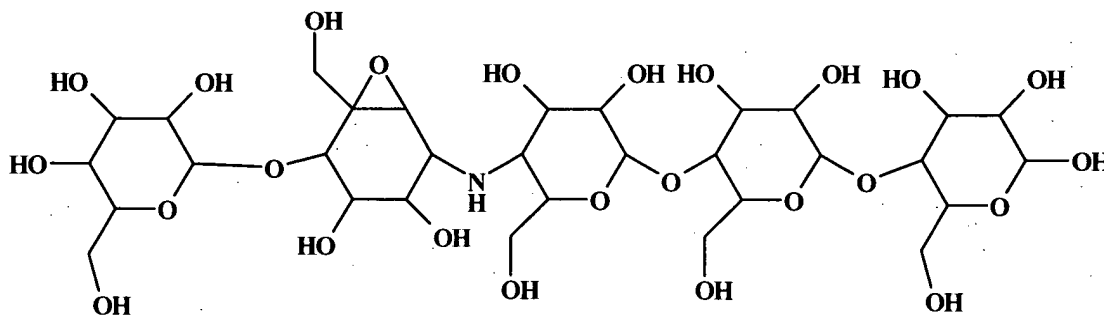
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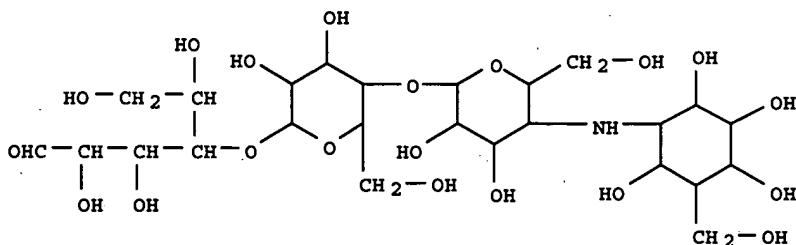
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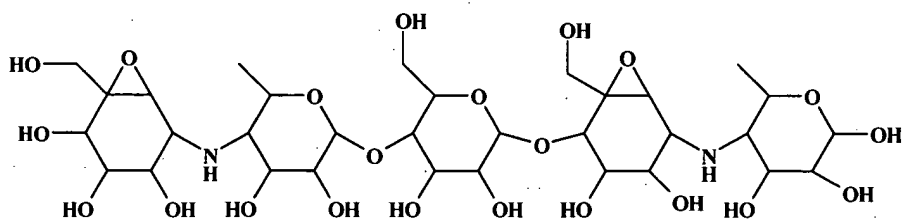
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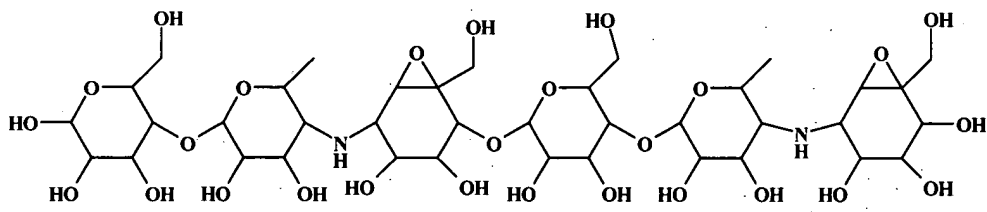
Hata, Yoji; Kawato, Shoji; Abe, Yasuhisa; Ono, Kazuhisa. JP-02092267-A2

RN-121624-16-6



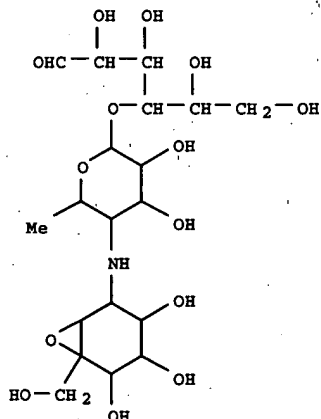
Vertesy, Laszlo; Betz, Joachim; Fehlhaber, Hans Wolfram; Geisen, Karl. EP-257418-A2

RN-121657-68-9



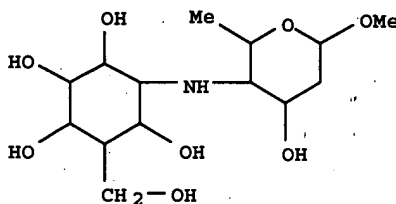
Vertesy, Laszlo; Betz, Joachim; Fehlhaber, Hans Wolfram; Geisen, Karl. EP-257418-A2

RN-117193-65-4



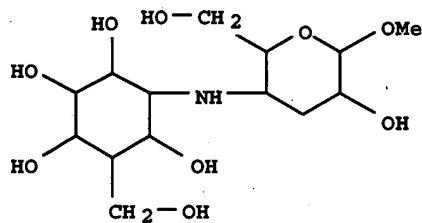
Ogawa, Seiichiro; Ikeda, Nobuo; Takeda, Haruki; Nakagawa, Yoshio. Carbohydrate Research (1988), 175(2), 294-301 p295

RN-128554-58-5



Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38

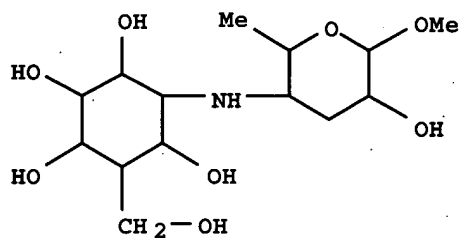
RN-128536-90-3



Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38



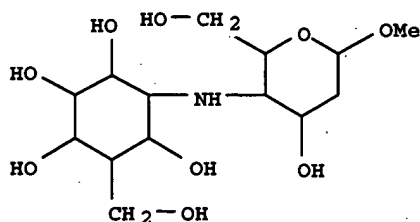
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Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38

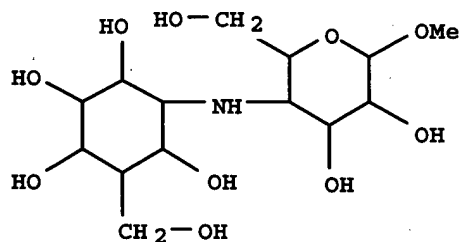
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Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38

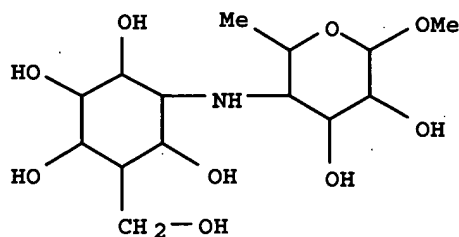
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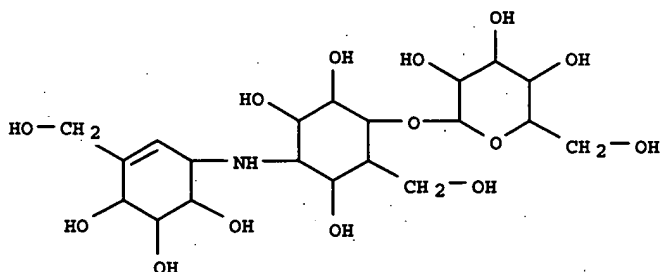
Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38

RN-128536-86-7



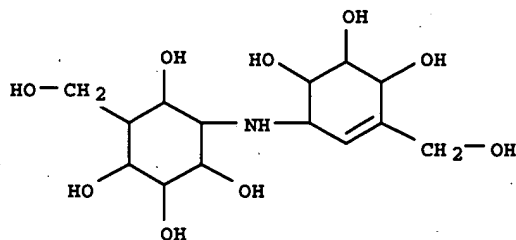
Shibata, Yasushi; Kosuge, Yasuhiro; Ogawa, Seiichiro. Carbohydrate Research (1990), 199(1), 37-54 p38

RN-102583-47-1



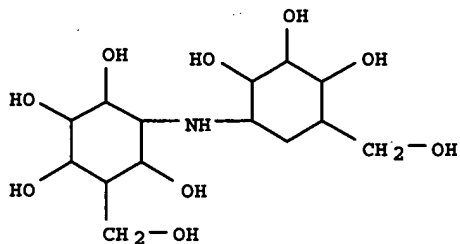
Fujinomori, Kenichi; Ishikawa, Akira; Nishimoto, Mayumi. JP-10101507-A2

RN-81739-22-2



Ogawa, Seiichiro; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Abe, Yasuo; Suami, Tetsuo Chemistry Letters (1982), (3), 279-82

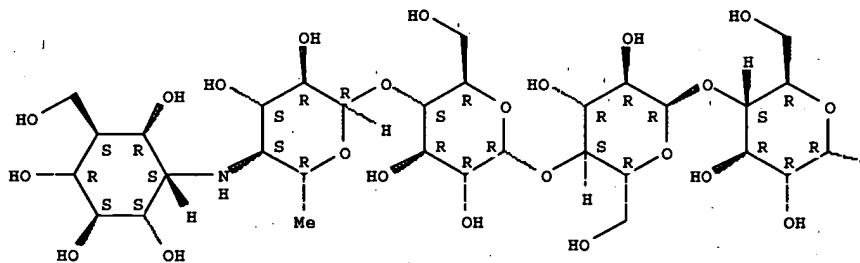
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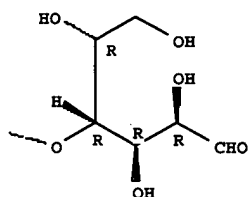
Ogawa, Seiichiro; Toyokuni, Tatsushi; Iwasawa, Yoshikazu; Abe, Yasuo; Suami, Tetsuo.  
Chemistry Letters (1982), (3), 279-82

RN-80955-61-9

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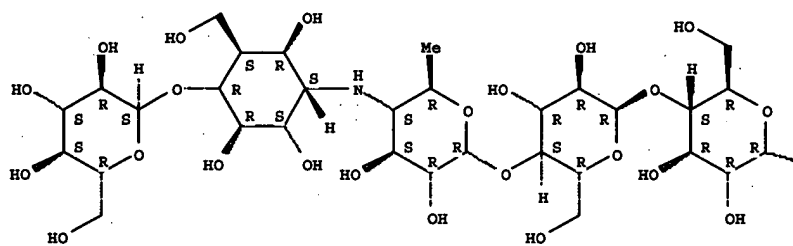
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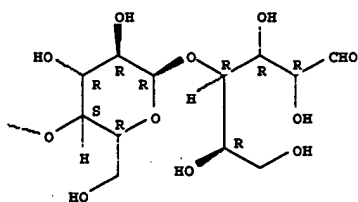
Itoh J; Omoto S; Shomura T; Ogino H; Iwamatsu K; Inouye S; Hidaka H. J. Antibiotics  
(1981 Nov), 34(11), p1429

RN-80955-60-8

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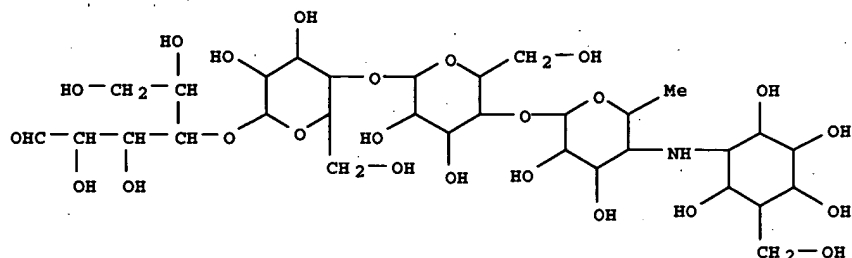


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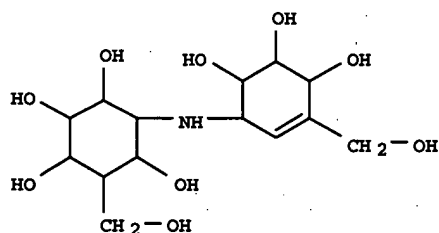
Itoh J; Omoto S; Shomura T; Ogino H; Iwamatsu K; Inouye S; Hidaka H. J. Antibiotics  
(1981 Nov), 34(11), p1429

RN-78025-06-6



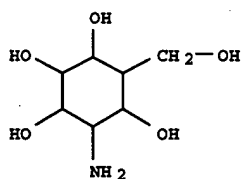
Itoh J; Omoto S; Shomura T; Ogino H; Iwamatsu K; Inouye S; Hidaka H. J. Antibiotics (1981 Nov), 34(11), p1429

RN-39318-73-5



Horii, Satoshi; Kameda, Yukihiro; Iwasa, Takashi; Yamamoto, Hitoichi. GB-1392505

RN-33034-94-5



Kameda, Yukihiro; Asano, Naoki; Yoshikawa, Michiyo; Takeuchi, Masayoshi; Yamaguchi, Takuji; Matsui, Katsuhiko; Horii, Satoshi; Fukase, Hiroshi. Journal of Antibiotics (1984), 37(11), 1301-7 p1301.

By "acarbose and the higher homologues thereof" is meant the amylostatins of the formula given below, and mentioned generically and specifically in British Patent No. GB 1,482,543; U.S. Patent 4,175,123; and in *Agric. Biol. Chem.*, 46 (7), 1941-1945, 1982, all of which are hereby incorporated by reference in their entirety.